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THE
WESTERN GENTLEMAN'S
F A R R I E R ;

CONTAINING

*REMEDIES FOR THE DIFFERENT DISEASES
TO WHICH HORSES ARE INCIDENT
IN THE WESTERN & SOUTH
WESTERN STATES.*

BY WILLIAM WALLIS,
*Late Fellow of His Royal Highness' College of Veterinary
Surgeons London.*

TO WHICH IS ADDED

A N A P P E N D I X ;

CONTAINING RECEIPTS FOR THE CURE OF MANY
DISEASES TO WHICH HORSES, CATTLE, SHEEP
AND HOGS ARE LIABLE, TOGETHER WITH
MUCH USEFUL AND INTERESTING INFOR-
MATION TO THE FARMER AND HORSE
GROWER, SELECTED FROM THE MOST
EMINENT AND ERUDITE AUTHORS.

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RECOMMENDATION.

The following letter to the compiler will shew how the talents of Dr. Wallis were esteemed by those capable of appreciating them:

SIR,—We, the subscribers, having understood that you are about publishing **DR. WALLIS' SYSTEM OF FARRIERY**, and having had proof of his skill and knowledge in that art, frankly state that we, as owners of stage horses, have saved considerable sums of money by timely applying to him, or making use of such recipes as he had placed in our hands, to be applied agreeably to his directions.

We believe such a work will prove a lasting piece of useful and beneficial property to almost every person in the Western and Southern States, and as such, recommend it to the friends of that most useful animal, of whose health we should be as careful as we would of any other servant, or even of our own. We are confident the work will not prove like the production of quacks, (with which the public have been sufficiently cheated,) but the experience of a man who has devoted his whole life in perfecting himself in the art.

TIMOTHY SQUIER
PETER VOORHEES,
JARVIS PIKE,
WM. NEIL,
A. L. HUNT,
PETER BEERS.

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PREFACE.

To the intelligent reader, an apology for the present work would be useless; and at first thought, all must readily acknowledge the want of a more extended research in this branch of science. Most of the present works on FARRIERY, or more especially those adapted to our western climate, are of little avail, and serve to lead the community still farther astray in witchcraft and delusion, rather than enlighten and prove useful. Such for example as a work recently published by Wilhelm.

But in the following work, we have long experience, aided by the most profound scientific research. Dr. William Wallis, who is well known to the public, after having resided at London and practised in the principal cities of Europe and America, made his residence among us, during which time, all have witnessed his success in business; and happily for the good of community, the last year previous to his death was spent in preparing the following pages for the press. In so doing, he has declared to us

that diseases exist here among horses, that he has never met with elsewhere; for example, the "BIG HEAD" or "NASAL POLYPI," &c., and many other diseases, appropriate remedies for which, will be found in the work.

In the Appendix, great care has been taken to select such matter as will be useful to the growers of stock, not only Horses, but Cattle, Sheep, &c. These selections have been made from Authors of both experience and science, and doubtless must supersede most of the works in present use.

Since the following work was put to press, we have been put in possession of much useful matter, which it was found impracticable to embody in the present publication, although it already contains the general system and practice of Farriery so successfully pursued by its celebrated author.

Should the present edition meet with sufficient patronage, it is the intention of the publisher to present the public with a new and enlarged edition, containing all the information in his possession, calculated to render it beneficial and serviceable to farmers and stock growers in every section of the Union.

As no branch of science in its infancy can be looked upon as perfect, so in the present work the writer has given in as plain, concise and correct a manner as possible, the symptoms

and etiology of diseases, with their treatment, &c. Great care has been taken to render the work easy of comprehension, so that the most common observer may readily discriminate between different diseases, however nearly allied to each other.

With these brief remarks, we submit it to the public, with the assurance that no pains have been spared on our part to make it useful, and with the just conviction that merit alone must render it worthy of patronage.

THE PUBLISHER.

THE WESTERN GENTLEMAN'S FARRIER.

COLIC.

THIS is a disease common among horses.— The causes and symptoms are various, but ultimately lead to the production of the same effects. The principal cause, however, is excessive fatigue, and then suffering the horse to drink a large quantity of water, or else driving him into water whilst in a state of perspiration. Unsaddling horses, also, while heated, in a smart current of air, ought to be avoided, as it is apt to produce the same effect. The similarity of appearance which exists between the Colic and an Inflammation of the Bowels, renders it necessary that the symptoms should be examined minutely, that no mistake may occur in the application of medicines, different medicines being requisite for the different diseases. In order therefore, that you may not be mistaken in this particular, I subjoin the following table and remarks taken from Dr. Hind's Farriery, (which on examination, I

find to be correct,) as published in 1830: by a close observance of the symptoms which mark the character of each, you will be enabled to proceed in the proper manner:

<i>"Spasmodic Colic.</i>	<i>Inflammation of Bowels.</i>
1 Pulse natural, though sometimes a little lower.	1 Pulse very quick and small.
2 The horse lies down and rolls upon his back.	2 He lies down and suddenly rises up again, seldom rolling upon his back.
3 The legs and ears generally warm.	3 Legs and ears generally cold.
4 Attack sudden, is never preceded, and seldom accompanied by symptoms of fever.	4 In general, attacks gradually, is commonly preceded, and always accompanied by symptoms of fever.
5 There are frequently short intermissions.	5 No intermissions can be observed."

These diseases although, in fact, very dissimilar in their symptoms, are so much alike at first view, that the superficial observer and unskilful practitioner, would frequently prescribe for one disease, what would only be serviceable in the other; and thus a valuable animal be lost by inattention to the symptoms set forth in the foregoing table.

When, from observance of the above rules, you discover the animal to be afflicted with the Colic, you must pursue the following course, viz:

Take Asafoetida	-	-	½ oz.
Tincture Opium			2 dr.
Sweet Spirits Nitre			2 dr.
Spirits (of any kind)			1 pint.

Dissolve the asafoetida in the spirits, then add the other ingredients, after which, drench.

Should it be found necessary, repeat in one hour afterwards.

On a journey, where the above medicines cannot be conveniently procured, take half a pint of good spirits, and add a tablespoonful of ginger or pepper, and after shaking well, drench. This I have frequently known to have the desired effect; though not so certain as the above.

INFLAMMATION OF THE BOWELS.

The horse attacked with this painful and dangerous disease, appears dull and uneasy, paws much with his fore feet, will eat but little, or none, his urine turbid and small in quantity, and seems to give excessive pain in discharging it; he lies down but rises immediately, looks round at his belly and appears to be in excruciating misery, and attempts to kick it. To remedy this, bleed him immediately in the neck vein, to the amount of two quarts if he is large and strong, but if small and weak, one quart. After which

Take Castor Oil	1 pint.
Tinct. Opium	2 oz.
Gum Arabic	1 oz.

Mix well together for one drench. Bleed him to the same amount as above, six or eight hours afterwards. If necessary, repeat the drench next day. Let his food be chopped rye or bran—his drink cold water. Keep him from getting wet, as it will retard the progress of the cure.

Stage horses are necessarily more liable to both the foregoing diseases than others, from the peculiarity of their situation. They are highly fed, and for the accomplishment of their tasks (in the transportation of the mails particularly,) are hardly driven. The first indication of the disease should be promptly met: the grooms, hostlers, and drivers, are the most proper attendants, and it lies within their sphere of duty. Costiveness will also produce inflammation, for if the necessary evacuations do not take place, fever ensues, and, without close attention, it will *most assuredly* follow. It may, perhaps, be necessary to make use of purgative balls, and also to rake with the hand from the rectum, and apply clysters, ere the disease can be removed. [See *purgative balls*.]

INFLAMMATION OF THE EYES.

An inflammation in the eyes, whether it pre-

seeds from cold or over exercise, either of which will produce it, should be treated in the manner following:

Take Sugar of Lead 2 dr.

Zinc - 1 dr.

Dissolve in six ounces of water, then add

Opium - 1 dr.

Mix them well together, and with a feather or soft sponge, apply to the inside of the eye-lid once a day for four days successively. The evening is the most proper time for making the application, as the horse will not be so much offended by the light, his eyes being more generally closed, which will give the medicines a better opportunity of having the desired effect. Should, however, the inflammation arise from a foul stable and want of proper exercise, together with high feeding, it will be necessary to bleed him to the amount of three or four pints.

If, at the end of a couple of weeks the disease should not be entirely removed, repeat the mixture as at first.

CATARACT ON THE EYE.

This disease proceeds from an inflammation of the eye, which has not been remedied at a proper time. The eyes lose their brilliancy, a film ensues, and ultimately ends in a cataract
→to remove which

Take Pulverised Glass, finely sifted, $\frac{1}{2}$ oz.

Honey - - - $\frac{1}{2}$ oz.

Mix them well together, and apply with a small soft brush to the internal part of the eye, in the evening, for the reasons given on the preceding page.

I have known this remedy to remove Cataracts of five or six years standing—restoring to the eye the lustre they possessed before being attacked with the disease.

Many practitioners are prejudiced against the use of the above mixture, but to such I will say, that I have, both in Europe and America, used it with success, when all other prescriptions had failed.

BIG HEAD.

The big head is an enlargement on each side of the head above the nostrils, attended by a stiffness of the joints, and although it has generally been classed among the incurable diseases of Horses, yet I have seldom failed to effect a complete cure. The only remedy for this disease; which may be relied on, is the following:—

Take Oil of Rosemary 1 oz.

Tinct. Cantharides 1 oz.

Oil of Origanum 1 oz.

Spirits Turpentine $\frac{1}{2}$ oz.

Olive Oil 2 oz.

Mix the Olive Oil and Turpentine well together, then add the other ingredients, shake the whole in a bottle and it is ready for use.

Introduce a rowel in the throat just above the chest, about the size of a dollar with a hole in the centre from a quarter to the third of an inch in diameter, which must be made of leather. Then apply to the inside of the rowel the above mixture, daily for two weeks: rub, also, to the outside of the head at the swelled part, a table spoonful of the medicine each day during the time—then discontinue. Let his food be light, such as bran and oats, into which put a half a tea spoonful of salt petre every other day. He must be kept from mud and wet.

SCRATCHES.

The scratches are produced by various causes, among which are hard riding and the inattention to proper cleanliness on the part of the hostler or master, suffering them to stand in a stall which is muddy or wet under foot, and not regularly rubbing their legs, especially after they have been wet. If the disease is not shortly checked, the animal will become lame and stiff so as to be almost entirely useless. For the cure of this disease, put the horse in a clean dry stall, wash his legs and feet clean with soap and water, and then apply the following:

Take of Litharge of Lead 1 oz.

Corrosive Sublimate $\frac{1}{2}$ oz.

White Vitriol 1 oz.

Mix in one quart strong Vinegar, and wash the legs daily with the mixture, keeping them clean. If the horse be fleshy take two quarts of blood from the neck vein, and give the following cooling powders in his food;

Take Antimony $\frac{1}{2}$ oz.

Rosin 1 oz.

Sulphur 2 oz.

Nitre 1 oz.

Pulverise them together and give a table spoonful every other day. His food should be chopped rye, bran or oats.

If the horse be lean in flesh no blood should be taken, but give the above food plentifully, and apply the wash as directed. Should any cracks remain, apply the following ointment:

Take Rosin 1 oz.

Beeswax $\frac{1}{2}$ oz.

Hogs Lard 4 oz.

Burgundy Pitch $\frac{1}{2}$ oz.

Melt the lard and pitch together, and add the rosin and beeswax, after which melt the whole over a slow fire.

YELLOW WATER.

This disease (which is infectious,) if not promptly met, is apt to prove fatal. Although

it seldom occurs in this neighborhood, yet it is quite common in Indiana, as well as all marshy places to the South West. The symptoms are loss of appetite, dullness, yellowness of the eyes, the hair easily removed from the skin and of a dead appearance, the urine of a murky brown color, together with unusual tightness of the skin. To remove this disease the following remedy must be used, and in the manner directed, viz:

Take of Copperas	1 table spoonful
Indigo	$\frac{1}{2}$ drachm
Ginger	1 table spoonful

Dissolve them in one pint of warm water, then drench and repeat three times a day for three days. At least two quarts of blood must be taken from the neck vein each day for two days, and if the horse is large and strong, take a greater quantity. Care must be taken to keep the horse from drinking cold water—let it be milk warm. Keep him from mud and wet, and other horses.

SORE TONGUE.

This disease which sometimes becomes epidemic in the southern and western states, makes its appearance in its earliest state by a blistering on the surface of the tongue, after which it swells and becomes black, attended in general by a swelling of the jaws. I cor-

sider this disease contagious and shall state for one reason for so thinking, that I have seen not only horses but cattle and hogs attacked in the same way, when they have been exposed to horses afflicted with it. It is necessary therefore, to keep the horse up in such a way that horses and other animals can not get near him. The mode of removing the disease is—

Take Alum pulverized 1 oz.

Borax 2 oz.

Decoction of Persimmon bark 2 oz.

Dissolve in one pint of vinegar, and apply two table spoonfuls to the under part of the tongue by means of a rag for three or four days successively.

COUGHS AND COLDS.

The frequency of this disease renders it familiar to the owners of horses, and is produced in general by being plunged into cold water while heated with exercise, or in a state of perspiration; by the want of rubbing after hard usage either in the saddle or harness; or even by being removed from a warm dry stable to a cold damp one, thereby producing chillness.—It is, however, not dangerous except as the precursor of other diseases more fatal in their effects. It may be removed with but little trouble and expense—

Take Oxymel of Squills	$\frac{1}{2}$ pint
Tinct. Opium	$\frac{1}{2}$ oz.
Salt of Prunelle	$\frac{1}{2}$ oz.

Mix in one quart of Vinegar and four table spoonfuls of honey—divide and make two drenches, one each day.

SPRAINS.

Sprains however variously they may be situated are either tendinous, muscular or ligamentary, and the same mode of treatment is to be pursued in each, with the exception of bandaging where that may be necessary. The best method of curing them I conceive to be, to foment the parts with bitter herbs and hot vinegar. If he should be violently sprained bleeding in the neck vein would be of service, as it would tend to lessen the danger of inflammation. After the fomentation apply the following--

Take of Camphor 4 oz.

Rectified spirits Wine 1 quart

Mix them so that the Camphor may be dissolved by rubbing it on with the hand, but not so hard as to give the animal unnecessary pain.—Let the horse be kept as quiet as possible, and free from mud and wet.

FARCY.

This loathsome disease consists in a swelling of the legs, commencing below and progressing upward until it reaches the belly, and is often very difficult to cure, unless early discovered and the remedy applied as soon as possible.—The surest mode of curing it is in pursuing the following course. Put a rowel on each thigh above the joint, and one in the breast—let them remain twenty days, taking care to turn them every other day. The rowels to be made of leather, wrapped with a small portion of tow, and impregnated with the following mixtures, viz.

Take of Cantharides, finely powdered, 1 oz.

Hog's Lard 2 oz.

Beeswax ½ oz.

Rosin ½ oz.

Melt the beeswax, rosin and lard well together in ½ oz. of Spirits of Salts, then add the Cantharides, and apply as above directed. The following must be given in his food during the time—

Red oak bark 1 handful

Dogwood bark 1 do.

Cherry tree bark 1 do.

Spicewood bark 1 do.

Boil in 3 quarts of water down to three pints, then strain off. If the horse should object to taking it in his food (which should be light,

such as bran, oats, chopped rye, or any other that is of easy digestion,) drench him with it three times a week. Should he be very fleshy take from him half a gallon of blood, and three days afterwards take the same quantity. The disease being contagious he should be kept from the immediate neighborhood of other horses until a perfect cure has been established, Let him be kept free from mud and water; you may occasionally give him green food.

POLL EVIL.

The poll evil proceeds from some external hurt which a horse has received, whether from accident or design, immediately on the top of the head, and should be cautiously dealt with, and by a person fully competent to the task. When the swelling first appears it may be removed by the following medicines:

Take Sal. Ammoniac 1 oz.

Oil of Origanum 1 oz.

Tincture Cantharides 1 oz.

Mix them well and drop about a table spoonful on the part three or four days successively, without rubbing. Should it be suffered to remain undisturbed, or badly treated, and a running of matter should ensue, you then proceed in this way:

Take Corrosive Sublimate	1 oz.
Litharge	2 oz.
Muriatic Acid	1 oz.

Dissolve the corrosive sublimate in one pint of strong vinegar, then add the other medicines. Wash the head clean with soap suds, and then apply the medicines with a syringe as deep as the bottom of the ulcer. In either case the horse must be kept from wet and mud, and in such way as will prevent him from rubbing the poll, in case it should be attended by an itching.

FISTULA.

This disagreeable disease proceeds, like the poll evil, from a blow or bruise, or it may be from the pressure of a saddle either too low or too narrow in the tree. Let it proceed from whatever cause, it should be met promptly as soon as it makes its appearance, by which the beauty of the animal may be preserved. Should it not be broken, treat the horse in the same manner and administer the same medicines as are prescribed for poll evil unbroken. But if matter has been formed, which is easily ascertained by the pressure of the finger, you must make an incision at the lower end of the affected part with a knife or lancet, for the purpose of suffering the matter to escape, then treat as for broken poll evil. Fomentation of bitter herbs may be of great benefit.

FOOT EVIL.

In this disease a soreness commences on the front part of the foot, attended by a swelling, sometimes on all the feet, after which a running ensues. To remove it

Take Corrosive Sublimate	1 oz.
Sugar Lead	1 oz.
Water	1 pint

Dissolve the Corrosive Sublimate in the water, then add the Sugar Lead; shake them well together, and after having washed the affected parts clean with soap suds, apply a table spoonful of the mixture to each leg every day for a week, giving him a little Salt petre in his food two or three times. Let him be kept from mud and wet, until the cure has been performed.

Where the disease proves obstinate, take the following, which will cure it in its worst stage.

Alcohol	1½ oz.
Spts. Turpentine	1½ oz.
Oil Vitriol	1½ oz.

Mix in one pint of old Ale or Beer bottoms.—When the vitriol is added, put the bottle into cold water to prevent its bursting with heat. Wash the feet of the horse well with soap and water, dry them, and then apply the medicine by washing or rubbing it on the part.

WALLIS' FARRIERY.
BLOOD SPAVIN.

This disease, which consists of a soft swelling on the joint, partaking somewhat of the appearance and nature of windgalls, is in general produced by violent exercise and over exertion, and want of proper care immediately after. In order to remove this disease

Take of Cantharides finely pulverised, 1 oz.

Hog's Lard 2 oz.

Beeswax $\frac{1}{2}$ oz.

Rosin $\frac{1}{2}$ oz.

Melt the beeswax, rosin and Hog's lard in $\frac{1}{2}$ oz. Spirits of Salts, then add the Cantharides; mix them well together and apply one table spoonful to the part affected, rubbed in with the hand the first day. On the second day spread on some with a knife. Keep the horse so confined that he cannot get his head to the affected part for three or four days. The horse should be allowed to rest for ten or twelve days.

The above quantity of medicine is sufficient for the cure of two legs.

BONE SPAVIN.

Although some practitioners believe this disease incurable, and offer medicines merely as an alleviation of the pain of the animal, yet I have seldom known the following course to

fail of effecting a certain and permanent cure. The bone spavin consists in a hard substance on the inside of the joints of a horse's hind legs, and is common only to those driven hard whether in harness or otherwise. The mode of treatment I have invariable pursued is, to procure an iron of the following dimensions, viz.



Width of blade at the edge 1 inch:

Width of blade at the poll 2 $\frac{1}{4}$ inches,

The handle to be twelve inches long, blade included.

The instrument to be half an inch in thickness at the poll, and brought to a sharp smooth edge. Having heated the above described instrument, burn on the joint the following figure:—



Lower end

Upper end

The middle or perpendicular burn to be four inches long—those connected with it to be one and a half inches long, and agreeably to the

above cut. Then take the same medicines and make use of the same treatment as for blood spavin. Should a repetition of the medicine and treatment be necessary, put the mixture on with the hand and hold a red hot iron over the part, but not so close as to burn the skin, the object of which is to produce a quicker and greater absorption.

NOTE:—Care must be taken when burning on the joint not to burn through the skin.

Although firing as it is called, may be considered barbarous, yet to save the life and services of a noble animal we must have recourse to the most violent means where those of a milder nature will not produce the desired effect.

RING BONE.

This disease has somewhat of the appearance and certainly partakes of the nature of the spavin, and like it has been considered one of the incurable diseases by which horses are afflicted. That opinion is, however, fallacious, as I have frequently proved. The ring-bone makes its appearance on the lower part of the pastern joint, is a bony substance reaching half way round the ancle, and if suffered to remain any length of time, will be productive of lameness, rendering the horse of no service whatever.

To remove a ring bone shave the hair closely from the part affected, and apply the same medicines as directed for Spavin, a table spoonful of the mixture must be put on each foot every day for three days successively. Care must be taken that he does not get his head to the affected parts during the time. He must also be kept from dirt, and not used for a week or ten days.

CURB.

The curb consists of a swelling on the back part of the hock joint. To remove it, shave the hair close from the joint, and apply the same medicine as is used for Spavin and in the same manner.

SAND CRACKS.

The sand cracks consist in a division of the hoof near the heel on either quarter. In order effectually to remove them, take the firing iron used for Bone Spavin, and burn immediately across just above the hoof, taking care not to burn through the skin, and then apply the Yellow Digestive Ointment. Put on a broad shoe; but be careful not to let the nails come near the affected part. The horse must be kept free from mud and wet.

LAMENESS IN ROUND JOINT OF THE HIP.

Where this disease has taken place, the horse will drag his leg without the power of lifting it. To remedy which, introduce a rowel about an inch below the joint, and then apply a blistering ointment made of the following medicines:—

Take of Cantharides, (pulverised) $\frac{1}{2}$ oz.

Hogs Lard 3 oz.

Beeswax $\frac{1}{2}$ oz.

Rosin $\frac{1}{2}$ oz.

Muriatic Acid $\frac{1}{2}$ oz.

Melt the lard, beeswax and rosin, and then add the acid and cantharides.

Application:—Shave the hair from the joint, clean the skin from dust, and then rub the ointment with the hand so hard as to produce an irritation in the skin. Keep the rowel open for fifteen or sixteen days, that the matter may discharge itself; then put on a strengthening plaster composed of .

Burgundy Pitch 1 oz.

Venice Turpentine 1 oz.

Rosin 1 oz.

Melt them all together and spread it on the part while warm. . Let it remain until it comes off of its own accord.

SEVERE ULCERS AND STUBBORN ERUPTIONS.

For the removal of these

Take of Purified Quicksilver 2 lbs.

Prepared Hog's Lard 23 oz.

Prepared Mutton Suet 1 oz.

Triturate the quicksilver with the suet and a little of the lard, until the globules be extinguished, then add the rest of the lard and form into an ointment.

MILD QUICKSILVER OINTMENT.

Take of the above stronger Mercurial

Ointment 1 part

Prepared Hog's Lard 2 parts

Mix them well. This ointment is good for the milder ulcers and eruptions.

SALLENDERS AND MALLENDERS

These consist in sharp acrimonious discharges, which become a sort of scurf or scab on the back of the knees and the inside of the hock behind. They can be remedied in the following manner:

Take Hog's Lard 23 oz.

Quicksilver, purified 2 lbs.

Mutton Suet, prepared, 2 oz.

Mix the quicksilver, suet and a part of the lard, until the globules disappear, then add the rest

of the lard and form into an ointment. After having washed the part with soap and water, wipe it perfectly dry, and then lay on the ointment.

FOUNDER.

In general this painful disease is entirely owing to the neglect or injudicious treatment of his master, or the person whose duty it is to attend them. The want of proper care has caused the death of many of these noble animals by this disease alone. The disease may be produced by excessively hard exercise and being permitted to plunge into cold water, or drinking plentifully of cold water while in a heated state; overfeeding while engaged in hard labor; eating great quantities of new corn and fodder; after being half starved, suffering him to eat more than the usual quantity; not suffering him to get entirely cool before you give him the quantity of food intended for him through the night, after a hard day's service.— If what is called a water Founder,

Take Whiskey	1 pint
Ginger pulverised	2 spoonfuls
Tinct. Opium	½ drachm

Mix together and drench. Let from three to six pints of blood be previously taken. If it should be what is called a grain Founder, take of

Asafoetida	4 oz.
Spirits	2 pints
Tinct. Opium	2 drachms
Sweet Spirits Nitre	2 do.

Mix well and drench, and then move the horse around quickly for some time, previously having bled him.

Where the founder happens on the road, and the above medicines cannot be procured, make use of the following simple means which has been known greatly to alleviate and sometimes entirely to remove the disease:—Take a brush or currycomb and rub as hard as possible from the fetlock joint upwards to the quarters, beginning with the hind legs—then bleed in the mouth: Be careful to let him have but little water.

VIVES.

This disease which generally succeeds colds, proceeds from the same causes. It is quite common, especially among young horses and consists of a swelling on each side of the head below the ears. Colts or young horses attacked with it while in the pasture seldom put their keepers to much trouble as the disease carries itself off; yet as it sometimes disfigures the animal by external eruption, it would be better to meet and expel it, which can be done in the following manner:

Take of Oil Origanum	2 oz
Spts. Sal. Ammoniac	1 oz.
Olive Oil	8 oz.

Mix the oils together, then add the ammoniac. Rub well on each side one table spoonful every day for four or five days. Put on a head cap of flannel and keep the horse from cold during the time. Let his food be light, such as bran, oats or chopped rye. Should the swelling prove obstinate, introduce a rowel on each side of the head at the lower part of the swelling.

BOTTS AND WORMS.

This disease by which so many horses are lost every year may be cured with very little trouble, unless the botts have eaten their way through the coats of the stomach, as is sometimes the case. When the horse is violently attacked, which you can discover by his frequently turning his head and looking towards his shoulders, either standing or lying, and appears to be in great pain.

Take Asafœtida	1 oz.
Sweet Spirits Nitre	1 oz.
Ether	$\frac{1}{2}$ oz.
Olive Oil	1 pint

Mix, and drench the horse immediately. Should it be necessary repeat in one hour afterwards.

YELLOW DIGESTIVE OINTMENT.

Take of Beeswax	1 pound
Yellow Rosin	12 oz.
Burgundy Pitch	8 oz.
Olive Oil	1 quart
Lard	$\frac{1}{2}$ pound
Common Turpentine	6 oz.
Muriatic Acid	$\frac{1}{4}$ oz.

Mix the other materials over a slow fire, and when nearly cool, add the muriatic acid.

PURGING BALLS.

Take of Barbadoes Aloes	8 drachms
Castile Soap	4 do.
Ginger pulverised	1 oz.

Mix in honey and form into a ball and give the horse by putting your hand as far down the throat as possible. Should the horse refuse the ball, you can make a drench of the same materials by adding a little whiskey and water. When these balls are used, the horse must be kept from cold water and mud, as they would destroy their effect. Let his drink be water about blood warm, and his food scalded bran or oats. If the horse be small, half the above quantity will be sufficient.

FLESH WOUNDS.

Wash the part with soap and water, then bind it up in the blood, as tight as possible, ex-

tending the bandage four or five inches on each side of the wound. Let a sticking plaster made of the following materials, wide enough to cover the wound, to be spread on soft leather or strong linen cloth, be applied and bound on as above directed:—

Take of Burgundy Pitch	1 oz.
Rosin	1 oz.
Beeswax	1 oz.

Melt them gently together and spread on the bandage before entirely cold.

Should an inflammation ensue, make use of the following mixture:—

Take of Cochineal	1 oz.
Oil of Origanum	1 oz.

Dissolve the cochineal in one pint of Alcohol, then add the Origanum—rub on the inflamed part, but still apply the bandage.

THE HEAVES.

Although this disease cannot positively be stated as incurable, yet if it is not timely attended to, will undoubtedly terminate in one which I have always considered to be so, viz. that known by the name of "Broken Wind," the opinions of some Farriers to the contrary notwithstanding. It proceeds, in general, from excessive fatigue, after having been for some time stabled, or from being hardly galloped after full feeding and watering. To alleviate the disease

Take Gum Ammoniac	$\frac{1}{2}$ oz.
Rosin	$\frac{1}{4}$ oz.
Gum Arabic	$\frac{1}{4}$ oz.

Dissolve in one pint of strong vinegar—drench the horse in the morning, on an empty stomach. Let him have food about two hours afterwards. Repeat in two weeks afterwards: And lest the disease should return, once a month for several months, or until you think it entirely eradicated.

CAMPHORATED OIL

Take of Olive Oil	2 oz.
Camphor	$\frac{1}{4}$ oz.

Mix them so that the camphor may be dissolved. This is a simple solution of camphor in fixed oil, and is an excellent application for local pains and glandular swellings, from whatever causes.

CITRON OINTMENT

Take of Quicksilver	1 oz.
Hog's Lard	$\frac{1}{4}$ oz.

Mix well in a mortar, then add 1 oz. of Sulphur, and then mix all together. This ointment is used for eruptions of the skin of any kind, including the mange or scab—also for the scratches. Apply by rubbing a small portion on all the parts affected, with the hand.

☞ Good for either man or beast.

FILTRIC.

This disorder although common in this country seldom attacks an old horse or one kept on grain, but generally seizes on those from three to four years old, that have been principally kept on grass, or run in low marshy ground.— It consists in a swelling of the belly, and may be removed in the following manner. Put a rowel in the centre of the chest, and another in the centre of the belly, carefully, and let them remain two weeks. Drench the horse with the following mixture,—

Take of Antimony 1 oz.

Nitre 1 oz.

Sulphur 1 oz.

Mix in one pint of water: Give one half the first day and the other half in four days afterwards. Keep him from getting wet three or four days after you take out the rowels, then turn him out to pasture.



The rowel should be made of soal leather, of a circular shape with a hole in the centre about one third of an inch in diameter, for the purpose of letting any matter

escape which may collect, and wrap a little tow around it.

MAD STAGGERS.

The horse affected with this disease, acts as under an inflammation of the brain; his eyes become inflamed, and he runs to and fro, apparently without motive, and it is sometimes dangerous to approach him during the paroxysm.— Sometimes he will eat voraciously, at other times he has no appetite whatever. The most speedy and certain cure is to bleed him copiously in the neck vein and in both thigh veins, then drench him with

Tinct. Opium 1 oz.

Whiskey 1 pint

Ginger 1 table spoonful

Mix. The horse must be so confined that he cannot hurt himself. If necessary repeat the drench five hours afterwards.

SLEEPY STAGGERS.

The sleepy staggers may be known by an apparent insensibility of the animal: he hangs down his head or leans it on the trough, manger, or even stumps, &c. He is not so vicious as if under the influence of mad staggers; but is equally unfit for any useful service, from his lethargic propensity. The disease may be removed in the following manner:

Take of Ether 1 oz.

Camphor 1 oz.

Sweet Spirits Nitre 1 oz.

Molasses three table spoonfuls

Mix well together and drench. If necessary repeat in two hours afterwards. The horse must by no means be bled.

NOTE.—This disease is quite common in Indiana, Illinois, Missouri, and in marshy countries generally, especially west of the Allegheny mountains.

WARBLES AND SITFASTS.

These are produced by the friction of the collar or saddle on the back or shoulder of the horse, and are easily removed in the following manner:

Rub strong mercurial ointment to the part affected, and put on the saddle or collar as the case may require, and use the horse until the cores are expelled, then wash the part clean with soap and water, and apply the following embrocation, viz.

Take of Sugar of Lead	2 drachms
White Vitriol	4 do.

Dissolve in one pint of strong vinegar and wash the part affected once a day. The saddle or collar must be kept off during the time of using the above embrocation.

LAMENESS, TENDINOUS AND LIGAMENTARY.

This disease, which is very painful, consisting in a disorganization of the tendons and lig-

aments attached to the hinder part of the leg, although somewhat troublesome to the owner or person appointed to take care of the animal, is easily removed by pursuing the following course of treatment:

Take of Oil of Rosemary	1 oz.
Tinct. Cantharides	1 oz.
Oil of Origanum	1 oz.
Spts. Turpentine	$\frac{1}{2}$ oz.
Olive Oil	2 oz.

Mix the olive oil and turpentine together, then add the other medicines—shake them well together. Have the part or parts affected cleanly washed and dried, and then apply the medicine by rubbing it on with the hand four or five times, daily. Do not suffer the horse to stand in the mud or water during the time.

STRENGTHENING SATURNINE PLASTER.

Take Extract of Sugar of Lead	$\frac{1}{2}$ pint
Alcohol	$\frac{1}{2}$ pint

Mix and use as for Tendinous and Ligamentary lameness. In most slight injuries, particularly when discovered early and the mixture immediately applied, it seldom fails to have the desired effect.

MANGE.

This disease, which in general proceeds from surfeit, is contagious, hence the necessity of keep-

ing the horse apart from others, as it is common for those confined in the same stable to catch the infection. Although the disease is not dangerous, yet it sometimes occasions a vast deal of trouble. If proper treatment is observed it is easily cured; in order to which rub on the "citron ointment" with the hand closely, and give the following medicine in his food, every other day:

Take of Antimony	$\frac{1}{2}$ oz.
Salt Petre	$\frac{1}{2}$ oz.
Sulphur	2 oz.
Rosin	1 oz.

Mix. No blood must be taken from the horse—keep him from mud and wet for two or three weeks.

This disease is common in the western states generally, and particularly in Indiana.

GLANDERS.

Happily this disease is not common in this section of country, as it ever has, and, I suppose ever will be considered incurable. Some authors have recorded instances of cures, but I am inclined to believe they only amounted to a partial relief instead of permanent cures. My own practice, which has been pretty extensive, has not furnished a solitary instance of cure. The most prominent symptoms are a watery discharge from the nostrils, which after-

wards assumes an appearance not unlike the white of an egg, after which a mixture of blood appears in the mucus which exudes from the nostrils emitting a fœtid smell. The animal may be relieved by using the following medicines and treatment:

Take Balsam Tolu	1 oz.
Gum Ammoniac	1 oz.
Gum Arabic	1 oz.
Oxymel of Squills	1 oz.

Mix the gums and oxymel in one quart of strong vinegar, then add the balsam; make into two drenches and give one each day. This mixture will give relief for about a month, at the end of which time it must be repeated.

Care must be taken to keep him from other horses as the disease is contagious.

EMOLIENT FOMENTATION.

Take of Rosemary leaves	1 oz.
Wormwood leaves	1 oz.
Lavender leaves	1 oz.
Camomile flowers	1 oz.
Elder flowers	1 oz.

Boil in three gallons of water for half an hour keeping the herbs stirred below the surface.

In cases of swelling in any part of the body or limbs, let the affected parts be fomented with sponge or flannel, as warm as possible

without injuring the hair or skin of the animal, for a considerable time. In such cases you will find this productive of the utmost benefit.

SWINA.

The swina consists in a reduction or contraction of the flesh on the shoulders of the animal, and is occasioned by straining; it may be cured in the following manner:

Take Spirits of Turpentine	1 pint
Hog's Lard	$\frac{1}{2}$ lb.
Rosin	$\frac{1}{2}$ lb.
Cantharides, (pulverised)	1 oz.

Mix the lard, rosin and cantharides together, then add the turpentine, and shake them well together.

Apply, by rubbing the ointment on each shoulder every other day for a week, then discontinue. Use a hot shovel over the part each time, to assist the absorption; but not so close as to injure the skin by burning.

NOTE. This medicine and treatment is good for swina either on the shoulder or hip.

QUINCY OR COLT DISTEMPER.

This disease consists in an inflammation and swelling of the glands under and in the throat. It more generally attacks horses of from three to five years of age. The inflamed glands, in a short time suppurate, and emit a quantity of

matter—in which case there is not so much danger of the loss of the horse, as when entirely internal. Inveterate cases sometimes occur that prevent the animal from swallowing either water or food, when an external suppuration should be promoted as much as possible.

Should the disease prove altogether internal,

Take Oxymel of Squills	½ oz.
Vinegar	1 pint
Ginger, ground, ½ table spoonfull	
Two Eggs	

Boil the vinegar and squills together, and while warm add the ginger and eggs. Mix them well together and drench the horse.

If external—Take of Sal. Ammoniac 2 oz.

Olive Oil ½ pint

Mix. Apply by rubbing it on the part affected briskly with the hand. Then take half a peck of bran and pour half a gallon of boiling water upon it, and tie the horse's head to it in such a manner that he cannot move it about.—Let it be as warm as possible; this should be done for the purpose of steaming his throat. Should it be necessary, as is sometimes the case, let a rowel, such as before described, be introduced under his jaw. Let his food be bran and oats scalded together, given warm.

Whether external or internal repeat the dose every five days, if necessary.

HIDEBOUND.

A horse said to be hidebound has a contracted tightness and unpliability of the skin, and, felt on either side, seems as if almost adhering to the ribs. It proceeds from the penuriousness of the owner in not allowing him sufficient food, or from the inattention, neglect, or bad usage of the person to whose care he is entrusted. The coat of a horse affected with this disease, is alternately smooth and staring in patches, or in other words, standing on end, and sometimes appears of different hues. He has the appearance of extreme poverty, dejection of spirits, and internal disquietude, together with an unusual hollowness of the eyes.— It may be removed in the following manner—

Take Anniseed, ground,	1 oz.
Caraway Seed, do,	1 oz.
Coriander Seed, do.	1 oz.
Turmeric	1 oz.
Liquorice, pulverised,	1 oz.

Mix in one quart of whiskey and water, with two or three spoonfuls of sugar or molasses—drench. Repeat the dose every four days.— Let his exercise be gentle, his food be bran and oats scalded together, adding a little flaxseed—give it warm.

DISLOCATIONS.

If the fetlock joint be dislocated, let the operator with two or three assistants, bring the limb

to its proper place, then apply bandages of three inches in width, made of flannel, tightly bound upon the part: Pour cold water on it three or four times a day, for six or eight days, letting the horse stand still during the time, that the part may gain strength. Let his food be light, such as scalded bran, and very little water.

Every other dislocation should be treated in the same manner—let the operation in all cases be performed as soon as possible, lest a swelling and inflammation ensue, which will render it more difficult.



BROKEN LIMBS.

If the leg be broken, let splints, between two pieces of leather, be tightly bound upon the part, after having washed it well with spirits. Should the thigh be broken, treat in the same manner; there is, however, small hope of a cure. In either case, his diet must be light, his bowels kept open by emollient clysters, if they can conveniently be administered; if not, give some mild purgative medicine in his food. Keep him cool and quiet, and let him rest at least a month. Should a swelling or inflammation ensue, bathe the part with strong vinegar or camphorated spirits of wine every day, taking care not to remove the bandages.

TO KEEP FLIES, &c. FROM WOUNDS.

Take Fish oil and tinct. Asafœtida of each an equal quantity—rub on the part affected.—Should maggots be generated, in the wound, take the following mixture—

Corrosive Sublimate ½ oz.

Rain or soft water 1 pint,

Dissolve and apply to the part affected with a syringe.

Good for cattle as well as horses.

TO REMOVE LICE FROM HORSES AND COLTS.

Take Hog's Lard 1 lb.

Fish oil or fish brine 1 quart,

Mix it well together and rub it all over the horse, in the sun. Two applications will be sufficient.

TO STOP BLOOD.

Take strong Styptic water 2 parts,

Solution of Gum Kino 1 part,

Mix and apply. If from the nostrils, with a syringe: if from the mouth, by drenching with half a pint of the mixture. To discriminate whether the blood proceeds from a vein or artery, notice the appearance thereof: If it be bright and thin it issues from the latter; if, on the contrary, it should be black and corroded, it proceeds from a vein.

Should the blood proceed from the hinder internal parts, it will be discharged by the urinary passage. This hermorrhage arises from a strain or hurt on the back or across the kidneys, and can be cured as follows;

Take Sweet Spirits Nitre	1 oz.
Oil of Juniper	1 oz.
Balsom Copœvia	1 oz.
Salt of Prunelle	1 oz.

Mix by dissolving the salt of prunelle in one pint of Pennyroyal tea, and then add the others. This will be sufficient for one drench, If necessary repeat in two days afterwards.

ULCERATED WOUNDS:

Ulcers are in general occasioned by the mistreatment of wounds and bruises. When you discover that an ulcer has fairly made its appearance, wash the part clean with soap suds, and apply a sufficient quantity to cover the wound, every other day, with the following medicine:

Take Balsom Copœvia	2 oz.
Gum Kino	1 oz.
Lithrage of lead	1 oz.
Verdigris	$\frac{1}{2}$ oz.
Rosin	1 oz.
Hog's Lard	3 oz.

Melt the lard, gum and rosin together—when nearly cold, add the other medicines and stir briskly.

NOTE. The above is good for any kind of ulcers to which the horse is liable.

HOOKS.

This disease, which is very common in this country, consists of a large swelling in the lower muscle of the eye, which if not removed, will in a short time become inflamed and give the owner or keeper much trouble, the animal great pain, with, perhaps, partial or total blindness. To obviate this

Take Sugar of Lead	2 drachms
Zinc	1 do.
Opium	1 do.

Dissolve the sugar of lead and zinc in six ounces of water, then add the opium—shake them well and apply to the internal part of the eye with a feather or soft sponge, every evening for four days, then discontinue. Should the medicine be found at the end of two weeks, not to have had the desired effect, repeat it for the same time as before directed, and in the same manner—this will prove sufficient. The eyes of the horse should never be cut on any account, as it disfigures him forever after. Let his manger be kept clear from dust.

TO SUPPRESS THE RUNNING OF JOINT WATER.

The emission of joint water proceeds from

a hurt on the joint, where an incision has been made so far as to permit the oozing of the liquid which is generally known by the above term. This, if not arrested, will eventually produce a stiffness in the joint which is very hard to remove.

Take Gum Ammoniac 1 oz.

Strong Vinegar 1 pint

Balsom Tolu 1 oz.

Dissolve, and apply to the wound with a syringe
Poulticing must be avoided.

[In the former part of the work I discover that the following article, which should have been attached to or immediately followed the article on the disease "Farcy," was, by having the copy mislaid, omitted. I have, however, on account of its importance to the keepers of Livery Stables, horse owners, and Agriculturists in general, inserted it here.]

FARCY CAUSED BY OVERHEATING.

Although this disease has much the appearance of the disease "Farcy," it is to be treated in a very different manner; to cure this kind of farcy

Take Sulphur 2 oz.

Salt. Prunelle 2 oz.

Calcined Magnesia 2 oz.

Antimony 1 oz.

Mix them well together and give one table spoonful in his food, once a day. At the same time apply to the swelling sores the following,

Sugar Lead	2 drachms
White Vitriol	2 do.
Tinct. Opium	3 do.
Lithrage	1 do.

Mix in one pint of soft water, and, after having well cleansed the part affected, wash once a day. Should the horse be very fleshy take 2 quarts of blood from him; if lean, or has been greatly overheated, take none at all.

COOLING POWDER.

In warm weather, especially when they are denied the luxury of wholesome water, horses require something cooling. I would recommend for their relief the following—

Take Magnesia	$\frac{1}{2}$ oz.
Salts of Prunelle	$\frac{1}{2}$ oz.

Mix them together and give in his food once every two weeks, and oftener if necessary.

ANOTHER.

Take one table spoonful, well mixed together of Antimony, Sulphur, Nitre, and rosin—give every other night in his food.

When a horse is overheated,

Take Salt of Prunelle	1 oz.
Soft Water	1 pint

Dissolve and drench—he will be relieved.

LAMENESS IN THE FOOT.

When the hoof becomes sore from wounds or bruises, you may, easily, by feeling with the hand, find its locality, and when discovered, take the corn knife, the figure of which is attached, & make an incision in the part, then drop a little Spirit of Salts in the wound—put some tow saturated with tar over it—then put on the shoe. The horse should then be kept in the stable for three or four days.



But if the lameness proceed from corns, take the above mentioned knife, (which should be possessed by every practical Farrier and Smith, made of the finest steel, about six or seven inches in length, including the handle of wood, the back about one eighth of an inch thick, brought down to a fine edge on the other side, and one inch and a quarter in width,) and carefully cut the corns away. The knife must be made straight until within one and a half or two inches from the point, then curved as in the cut.

In some instances the corns are so situated as to prevent the use of the above, in which case, take a small instrument made in the same manner, about one third the width of the

above. You will then be prepared, completely, for any operation of the kind. The smith and groom should attend, particularly, to this business.

It is further the duty of the Farrier to be possessed of a picker—an instrument used for the purpose of extracting gravel from between the shoe and hoof. I conceive it to be unnecessary to describe the operation—as the shape of the instrument would point out its use.—Every farmer and driver of horses should have one, as in many instances it might save the trouble of sending the horse to a smith for the purpose of examining for the cause of the lameness, which will inevitably ensue. The negligence of the smith in shoeing is the principal cause of gravel being caught and retained in this manner.—Let the hoof be pared to fit the shoe or the shoe made to fit the hoof, [see article on shoeing.] The picker made in the form of the annexed cut, I conceive to be the most safe and convenient for the purpose.



When a horse becomes lame it is the duty of the owner or person in whose possession he

is, to examine the foot particularly, and apply the proper remedy, and if possible, save for their own benefit, and for the sake of humanity, the services of a noble animal.

SHOEING OF HORSES.

When it is necessary for the horse to be shod, if he has old shoes on, let them be taken carefully off, then, as his foot may be hollow or flat, form the shoe to fit, taking care in paring, not to cut too much from the frog of the foot; but cut off all the corns. Corns are generally on the inside of the fore, and outside of the hind foot. Should the foot be festered, reduce the part as much as possible without causing it to bleed, and drop a few drops Spirit of Salts on the part affected; then tack on the shoe with a few nails.

Stage horses should have shoes with heels half an inch high, made of steel, and toes corresponding. Let the shoes be taken off, carefully, every month. The frog must not be cut unless diseased. But if the foot be affected, put on the broad shoe recommended for sand cracks, taking care, however, that the nails touch not the affected part.

Notice particularly that the smith has good iron and steel, and let it be well hammered—much depends upon this. The nails should, in general, be small; but for large waggon horses, they may be increased in size.

The following valuable article on this subject, is from Loudon's Cyclopædia, and its according with my rules, prompts me to insert it.

From Loudon's Encyclopædia of Agriculture.

THE SHOEING OF HORSES.

The importance of the subject of shoeing to the agriculturist, is sufficiently attested by the immense number of inventions which the ingenuity of philosophers and artists are every day devising, to render the system complete. Almost every veterinary professor has his favourite shoe; and we find one of the most ingenious of the present day endeavouring to force on our notice, and introduce into our stables, the French method; which, with the exception of the mode of nailing on, White observes, is the very worst he ever saw. The French shoe has a wide web towards the toe, and is concave above, and convex below on the ground surface, by which neither the toe nor heel touch the ground but the horse stands pretty much in the same way with an unhappy cat, shod by unlucky boys with walnut shells. But as Blaine observes, in reference to these inventions, "no one form of foot defence can be offered as an universal pattern." It is, he continues, plain that the principles of shoeing ought to be those that allow as little departure from nature as circumstances will justify. The practice, al-

so, should be strictly consonant to the principles; and both ought to consist, first, in removing no parts but those which, if the bare hoof were applied to natural ground, would remove of themselves. Secondly, in bringing such parts in contact with the ground (generally speaking,) as are opposed to it in an unshod state; and above all, to endeavour to preserve the original form of the foot, by framing the shoe thereto; but never to alter the foot to the defence. The shoe at present made at the forges of the most respectable smiths in the cities and large towns throughout the kingdom, if it have not all the requisites, is, however, so much improved on, that with some alterations, not difficult either to direct or adopt, is the one we shall hold up as the most eligible for general shoeing. It is not that a better might not be offered to the notice; and in fact such a one we shall present to our readers; but so averse are the generality of smiths to have any improvements forced on them, and so obstinately determined are they to adhere to the forms handed down to them by their forefathers, that their stupidity or malevolence, or both, frequently makes the improvement itself, when seemingly acquiesced in, a source of irreparable injury. It is for these reasons we would recommend to agriculturists in general, a modified shoe of the common stamp.

The improved shoe for general use is rather wider than what is usually made. Its nail holes extend no further towards the heels than is actually necessary for security; by which the expansion of these parts is encouraged, and contraction is avoided. To strengthen the attachment, and to make up for this liberty given to the heels, the nails should be carried around the front of the shoe. The nail holes, on the under or ground surface of the shoe are usually formed in a gutter, technically called the *fullering*; but in the case of heavy treading powerful horses, this gutter may be omitted, or if adopted, the shoe in that part may be steeled. The web, should be quite even on the foot or hoof surface, and not only be rather wider, but it should also have rather more substance than is common, from half an inch to five-eighths in thickness according to circumstances, forms a fair proportion; when it is less, it is apt, in wearing, to bend to pressure and force out the clinches. A great error is committed in setting shoes out so much wider than the heels themselves: this error has been devised to correct another, which has been that of letting horses go too long without shoeing; in which case, if the heels of the shoe were not too wide originally, as the foot grew, they became lost within the heels; and thus bruised and produced corns:

but as we will suppose that few will wish to enter into a certain error to avoid an uncertain one, so we recommend that the heels of the shoe should stand only wide enough to prevent the expansion of the quarters pushing the heels of the feet over the outer edge of the heels of the shoe: for which purpose, if the iron project rather less than a quarter of an inch, instead of three-eighths, or even half an inch, as it frequently does, many advantages will be gained. Whoever attentively examines a shoe well set off at the heels, as it is termed, will find only one-third of its flat surface protecting the heels: the remainder projects beyond, and serves but to form a shelf to lodge dirt on; or as a convenient clip for another horse to tread on, or for the wearer to cut his own legs with; or to afford a more ready hold for the suction of clayey grounds to force off the shoe by.—The heels of the common shoe are likewise not in general sufficiently long for the protection of the foot; and which defect, more than a want of width, causes the tendency to press on the crust of the heels. It is further to be observed, that if the decreased width of the outer standing of the heels, and the increased width of the web, should make the inner angle of the shoe heel in danger of interfering with the frog, the corner may be taken off. In forging this shoe, it may be bevelled, or left plane on both

surfaces, or rather nearly so, for it is usual with most smiths to thin it in some degree towards the inner edge. This shoe is applicable to most feet, is easily formed, and, as such, in country places, is all that can be expected.

The injurious effects of bad shoeing would only be required to be known to excite every endeavour to obviate them; and there are some circumstances in the more common shoes of country smiths, that ought to be impressed on the mind of every agriculturist, and guarded against by every one who possesses a horse. It is too frequently observed that the ground side of their shoe is convex, and that the inner rim, when the foot is on the ground, is the lowest part; on which it is evident the weight must first press; and by which pressure the crust will be forcibly thrust on the extreme edge of the shoe; and the only assistance offered to its being forced from it, depends upon the nails and clinches, instead of its just application to the ground, and the support derived from the uniform pressure of the whole. Every shoe should, therefore, be perfectly level on its ground surface: nor should any shoe be put on that has not been tried on a *plane iron* purposely made for such trial: which irons are kept in some smithies, but are absent from too many. The substance of the shoe should be the same throughout, forming two parallel lines of upper

and under surface; in plain language, the heels, instead of being clubbed, as is too frequent, should be the exact thickness of the toe. Neither should the width at the heels diminish in the proportion it usually does; on the contrary, for a perfectly formed foot, the web should present an uniform width throughout.

Varieties in form of foot, differences in size, weight, and uses of horses, will necessarily make deviations in the form and substance of shoes. The very shoe recommended, may be considered as a variation from what would be immediately necessary, were the feet generally perfect; but it is to be considered that there are but very few feet but what have undergone some unfavourable alteration in their form, which makes them very sensible of concussion. It is for this reason, therefore, that it is recommended, that a shoe be used, for general purposes, somewhat wider and thicker than the common one. In weak, tender, flexible feet, it will be found particularly advantageous; and here the benefit of wide heels to the shoe will be most apparent. Good as the roads now are, yet most horses are occasionally subjected to travel on bad ones; some know no other: to these, the addition of one, or at the most, two ounces to each shoe is nothing; but the ease to the horse and its superior covering, as well as support, is incalculable. In very young, very

light, and very firm feet, the width and substance may be somewhat diminished at pleasure, and particularly in situations where the roads are uniformly good; but a very long and extensive experience has assured us, that the shoe portrayed, is one well calculated to meet the ordinary purposes of travelling, and the present state of the art of horse shoeing.

What has since been called the *seated shoe*, was introduced by Osmer; but from the obstinacy and ignorance of smiths, as it could not be brought into general use, it became little thought of, until revived by Clark, of Edinburgh, by whom it was patronised and recommended. It finally was taken up by Moorcroft, and has ever since attracted some attention, and continues to be forged in some shops where the work is superiorly done; and where the employers have liberality enough to pay for such work, and judgment enough to discriminate between its advantages and those of the common shoe. If to this shoe were added the French mode of fastening it to the foot, we think the improvement would almost shut out all others. This shoe presents a flat surface opposed to the ground; but a concave one towards the sole; but that this concavity does not begin, as in some seated shoes, near the outer edge, but embraces two-thirds only of the web, leaving by this means a sufficient surface for

the crust: but this bevelling is not intended to reach the heels; it stops short of them leaving the web at this part plane for the heels to rest upon. The great advantages of this seating are, first, that as the crust rests on a flat surface instead of an inclined plane, as most of the common forged shoes presents, so its position is maintained entire, and the inclination to contraction is in a great degree avoided. The nailing on of this shoe we would recommend to be after the French method, which consists in conical nail holes, punched with a square countersink, into which are received conical nails which exactly fill up the countersink; by which means so long as any part of the base of the nail remains, the shoe must be held firmly on, and which is not the only advantage gained; for the nail holes being obliquely formed, and at some distance from the outer rim, act less detrimentally on the crust of the foot.

To prepare the foot for the application of the shoe, is also an important consideration.— Avoid taking off more than one shoe at a time; otherwise the edges of the crust become broken away. Observe that the clinches are all carefully removed. Let the rough edges of the crust be rasped away; after which, the sole should be pared throughout, until a strong pressure with the thumb can produce some yielding: too strong a sole tends to heat and contraction;

too weak a one will not require paring. In this paring, imitate the natural arch of the sole as much as possible. The line of concavity should not begin, as it usually is made to do, from the extreme margin of the foot, but should begin from the inner line of the crust only; by which means the crust, or outer wall of the hoof, will have a firm bearing on the flat surface of the shoe. Let no heated shoe be applied to correct the inequalities that may be left, unless it is for a moment, only to observe, but not burn them; but still more carefully avoid putting a planeshoe on an uneven foot.—The portion of sole between the bars and quarters should be always pared out as the surest preventive against corns. The heels also should be reduced to a general level of the foot, never allowing their hardness to serve as an excuse for being left; neither suffer the inner heel to be lowered more than the outer. After all the rest has been done, the frog should be so trimmed as to remain on an exact level with the returns of the heels, and no more. The custom of taking away the point or angle of the horny inflexions of the heels, under the false term of opening the heels, is to be carefully avoided. Let all these operations be performed with a drawing knife. The butter is should never be allowed to come near the foot of any horse but the largest and coarsest of the cart breed.

The shoes for the hind feet are somewhat different to the fore, being a little squarer at the toe for about an inch; to which squareness the hoof is to be also adapted by rasping it slightly so, avoiding, however, to do it injuriously. By this mode a steady point of bearing is afforded to the hinder feet in the great exertions they are often called upon to make in galloping, leaping, &c.

They are, when thus formed, less liable, also, to interfere with the fore shoes by clicking. When horses click or over-reach very much, it is also common to square, or rather to shorten the toes of the hinder shoes; but not to do so by the horn; by which the hoof meets the middle of the fore shoe instead of the shoe itself, and the unpleasant noise of the stroke or click of one foot against the other is avoided.

Varieties which necessarily occur in shoeing. The bar shoe is the most important variety and it is to be regretted that so much prejudice prevails against this shoe, which can only arise from its unsightly appearance as betokening unsoundness. As a defence to weak thin feet, it is invaluable, as it removes a part of the pressure from the heels and quarters, which can ill bear it, to the frog which can well bear it; but a well formed bar shoe should not have its barred part raised into an edge behind, but such part should be one uniform

thickness throughout the web of the bar, which, instead of being the narrowest, should be the widest part of the shoe. The thickness of the bar should be greater or less, so as to be adapted to take only a moderate pressure from the frog. When the frog is altogether ulcerated away by thrush, the bar may be altogether plain; but this form of shoe is best for these cases, as it prevents the tender surface from being wounded. In corns this shoe is invaluable, and may then be so made as to lie off the affected part, which is the great desideratum in corns.

The hunting shoe is made lighter than the common one, and it is of consequence that it is made to sit as flat to the foot as it can safely do without pressing on the sole, by which the great suction in clayey grounds is much lessened. Hunting fore shoes should also be as short at the heels as is consistent with safety to the foot, to avoid the danger of being pulled off by the hinder shoes; nor should the web project at all. It is the custom to turn up the outer heel to prevent slipping; which is done sometimes to both fore and hind feet, and sometimes only to the latter. As this precaution can hardly be avoided in hilly slippery grounds, it should be rendered as little hurtful as possible by making the tread equal; to which purpose thicken the inner heel and turn

up the outer. This is better than lowering the outer heel to receive the shoe, which still leaves both the tread and foot uneven.

The racing shoe, or plate, is one made as light and as slender as will bear the weight of the horse, and the operations of forgeing, grooving, and punching: to enable it to do which, it ought to be made of the very best Sweedish iron. Three, or at most four nails, are sufficient on each side; and to avoid the interfering of the hind with the fore feet, the heels of the foreshoes are made as short as they can safely be. As racers are shod in the stable, the owners should be doubly careful that the plate is an exact fit. Many pairs ought to be brought and tried before any are suffered to be put on, and which is more important than is at first considered.

Grass shoes or tips, are very short pieces placed on the toe alone, in horses turned to grass in summer; at which time they are essentially necessary to guard the fore feet, which otherwise become broken away and irretrievably injured. They should be looked at occasionally, to see that they do not indent themselves into the soles.

Frost shoes, have the ends turned up to prevent the foot from sliding; unless the turning up or calkin be hardened, they soon wear level and require to be renewed, to the injury of the

foot by such frequent removals. To remedy this, many inventions have been tried; one of the best of these is that of Doctor Moore, in which the frost clip is made distinct and movable by means of a female screw worked in it, to which a knob or wedge and male screw are adapted; a key being used for fixing or removing it.

High calkins, or turn ups, however objectionable in general shoeing, yet, in precipitous counties, as those of Devonshire, Yorkshire, and of Scotland, &c., are absolutely necessary for their draft horses. It greatly obviates the evils of uneven pressure, if a calkin be also put to the toe; and it would be still better were these calkins steeled, particularly the fore ones.

The shoeing of diseased feet is necessarily very various, and is too often left to the discretion of the smith, by which the evils themselves are greatly aggravated, if he be ignorant. The most prominent alterations for these purposes will be found described under the respective diseases of the feet requiring them.

Horse Pattens are in use by some cultivators who occupy soft or mossy soils. Those esteemed the best are constructed of alder or elm, and are fixed to the hoof by means of three links and a staple, through each of which passes a leathern strap that goes twice around the hoof, and is fastened by a buckle. The staple

is placed behind the patten, which is ten inches one way, by ten and a half the other. The links are about three inches in length, and riveted through pieces of hoop iron to prevent the wood from splitting. After numerous trials it has been found that pattens made in this way, answer the purpose better than any other kind. (*Farmer's Mag.*)

SUPPRESSION OF URINE.

To give relief to a horse affected with this disease—

Take Asafoetida	½ oz.
Spirits	1 pint
Tinct. Opium	2 drachms
Sweet Spirits Nitre	2 do

Mix the asafoetida and Spirits together, then add the opium and nitre—drench the horse immediately. If the case should prove obstinate, and the horse should not void urine in the course of half an hour, add to the above one oz. Spirits Turpentine, and give another drench.

The feeding of pumpkins seems, frequently, to be a cause of this suppression, and more particularly with mares. When a mare has the colic, she is invariably more or less affected with it, and when the above cannot be conveniently procured,

Take the seeds from three common red peppers, mix with a common sized red onion, cut

fine, then apply to the interior of the pudendum with the thumb and fingers. This seldom fails to give immediate relief, and the ingredients being in possession of almost every farrier, renders it doubly valuable.

ANOTHER—URINE BALL.

Take Casteel Soap	½ lb.
Juniper berries	½ lb.
Oil of Juniper	2 oz.
Balsom Capaiva	2 oz.
Rosin	½ lb.
Oil of Turpentine	2 oz.
Ginger	1 oz.

Mix—apply by putting a ball as far as you can down his throat, of about the size of a hen's egg. Should the horse not be relieved in half an hour repeat the ball. The second application is almost certain to give relief.

Before, however, the practical farrier should make use of any medicines, he ought to be certain from what source the suppression proceeds. It is frequently produced by an inflammation of the kidneys; when such is the case, which you may easily discover by the horse shrinking and seeming to be in pain when you press the hand on the loins, you must pursue a different course. Give a dose of Castor oil, say from sixteen to twenty ounces, having previously taken from the horse from three to six or eight pints of

blood: after which should it be necessary, give him clysters or watergruel or warm water, to the amount of from six to twelve pints—then

Take Flour of Mustard	8 oz.
Oil of Turpentine	2 oz.
Camphor	1 oz.
Aqua Ammonia	2 oz.

Make them into a thin paste, and then apply by rubbing on the part for a considerable time, with the hand—cover the part with a warm blanket. When the disease proceeds from this cause, all diuretic medicines must be carefully avoided, as they tend to the production of irritability of the part, and instead of beneficial effects, the contrary is the result.

INFLAMMATION OF THE LUNGS.

This disease, although prevalent in several parts of the United States and Canada, does not so often visit this neighborhood; but when it does may always be considered dangerous, and in many instances, terminates, only, with the life of the animal. On the discovery of the disease it is necessary to meet it promptly. The symptoms are on examination generally found to be, an appearance of stupidity, the countenance without expression, loss of appetite, the mouth dry, the eyes red, the pulse quick, and the breathing short, accompanied by a cough. The skin seems to stick more closely to the ribs, and has a rough appearance.

Take from the neck vein from two to four quarts of blood, and should he be costive give a pint of Castor oil, and administer an injection of warm gruel or linseed tea. If you find no visible alteration for the better in eight or ten hours, bleed and pursue the same course as at first; frictions produced by rubbing, has in many instances been found beneficial. Give the following drench:

‡ oz. Balsom Copœvia

‡ oz. Gum Ammoniac

Dissolved in one pint of snake root tea, then add 1 oz. of Salt Prunelle, mix the whole in a pint of warm water, for two drenches, the second to be given after a lapse of four days.—Feed the horse on bran and oats. The horse should be kept warm, and moderately exercised; if necessary, rowel in the breast.

APPENDIX.

[From Loudon's *Encyclopædia of Agriculture*.]

VETERINARY OPERATIONS.

The general practices to be here enumerated are chiefly the treatment of wounds, the application of fomentations, setons, blisters, clysters, and physicking; and the operations of castrating, nicking, bleeding, &c.

TREATMENT OF WOUNDS.

A wound must be treated in some measure according to the horse's body in which it happens; but there are some principles to be observed alike in all horse surgery. There are likewise a few, which, as they differ from the principles of human surgery, should be first noticed, and which should guide the practice of those who might be misled by analogy. The wounds of horses, however carefully brought together and confined in their situation, as well as shut out from the stimulus of the external air, are seldom disposed to unite at once,

or, as it is called in surgical language, by the *first intention*. It is always, therefore, necessary to expect the suppurative process: but as the adhesive inflammation does now and then occur, we should never wash with water or other liquids a mere laceration, if no foreign matter, as dirt &c. be suspected to be lodged within it, still less should we stuff it with candle or tents of any kind. On the contrary, it should be carefully and smoothly brought together, and simply bound up in its own blood; and if it do not wholly unite at once, and by the *first intention*, perhaps some portion of it may; and, at all events, its future progress will be more natural, and the disfiguration less than when stuffed with tents, tow, &c., or irritated with heating oils or spirits. When an extensively lacerated wound takes place, it is common, and it is often necessary to insert sutures, or stitches, into the lips of the wound, and here we have to notice another considerable variation from the principles of human inflammation, which is, that these stitches in the horse, ox, and dog, soon ulcerate out, seldom remaining longer than the third or fourth day at farthest. It therefore is the more necessary to be careful, that by perfect rest, and the appropriation of good bandages, we secure the wound from distortion. In this we may be assisted by strips of sticking plaster, made with diachylon and

pitch: but these strips should be guarded from touching the wound itself by means of lint or tow first put over it. When, in addition to the laceration in a wound, there is a destruction of substance, then the caution of washing will not apply, as it will be necessary to bathe with some warming spirit, as *tincture of myrrh*, *tincture aloes*, or *friars' balsam*, to assist in restoring the life of the part, and in preventing mortification. Bleeding must be stopped by pressure and astringents, as powdered alum: when it is very considerable, the vessel from whence the blood comes must be taken up.—When great inflammation follows wounds or bruises, counteract it by bleeding, a cooling temperature, opening medicines, and continual fomentation to the part itself.

BALLS AND DRINKS.

Mode of giving a ball. Back the horse in his stall, and being elevated on a stool, (not a bucket turned upside down,) gently draw the tongue a little out of the mouth, so as to prevent its rising to resist the passage of the hand: the tongue should however not be laid hold of alone, but it should be held firmly by the fingers of the left hand against the jaw. The ball previously oiled, being taken into the right hand, which should be squeezed into as narrow a shape as possible, must be passed up close to the roof of the mouth, and the ball

placed on the root of the tongue, when both hands being withdrawn, it will readily pass down. This mode is much preferable, when a person is at all handy, to using a balling iron. At Long's, veterinary surgeons' instrument maker, is sold a clever machine for this purpose.

Mode of giving a drink. Exactly the same process is pursued, except that a horn holding the liquid matter is forced up the mouth; the passage being raised beyond the level line, the liquid is poured out from the larger end of the horn, and when the tongue is loosened it is swallowed. Clark, however, ingeniously proposes to substitute the smaller end of the horn, the larger being closed, by which he says, the horn can be forced up the mouth between the teeth, and poured farther back so as to insure its not returning.

FOMENTATIONS AND POULTICES.

Fomentations are very commonly recommended of various herbs. as chamomile, St. John's wort, wormwood, bay leaves, &c.; but the principal virtue is to be found in warmth and moisture, which unload the vessels: but this warmth is not to be too considerable, except when the inflammation is within, as in inflamed bowels. Here we foment to stimulate the skin, and cannot foment too hot; but when we do it at once to an inflamed part, it ought not to be more than of blood heat; and it should be

continued long, and when removed the part should be dried or covered, or cold may be taken, and the inflammation increased instead of diminished. Anodyne fomentations are made of poppy heads, and of tobacco, and are frequently of great use.

The method of applying fomentations is conveniently done by means of two large woollen cloths wrung out of the heated liquors; as one is cooling the other should be ready to be applied.

Poultices act in the same way as fomentation in allaying irritation and inflammation; but are in some respects more convenient, because they act continually. It is an error to suppose that poultices, to be beneficial, should be very hot: however hot they may be applied, they soon become of the temperature of the surrounding parts. When it is drawn over the leg and bound round the lower part of the hoof, or of the pastern, or otherwise, the matter of the poultice may be put within, and it may be then kept in its situation, if high up on the extremity, by means of tape fastened to one part of it, and passed over the withers or back to the other side, and again fastened to the stocking. In this way, also, loose bandages may be retained from slipping down. *Cold poultices* are often useful in the inflammations arising from strains, &c. In these cases bran and gou-

lard water form a convenient medium: but when the poultice is necessarily hot, a little linseed meal added to the bran will render it adhesive, and give it consistency. It is a very necessary caution in this, as in every instance where bandages are wanted around the extremities, to have them broad, and so tight as to secure the matters contained, as in a poultice, or as in common bandaging. It is often supposed that "as strong as a horse," denotes that nothing can be too strong for him. The horse, on the contrary, is one of the most tender animals alive; and a string tied very tight around the leg would occasion, first, a falling off of the hoof, next a mortification of the rest of the limb, and lastly the death of the animal; and all this as certainly as though he were shot with a bullet through the head.

SETONS AND ROWELS.

Setons are often useful in keeping up a drain to draw what are termed humours from parts; or by their irritations on one part, they lessen the inflammation in another part not very remote, as when applied in the cheek for ophthalmia or inflamed eyes. They also in the same way lessen old swellings, by exciting absorption.—Another useful action they have, is to make a dependent or convenient orifice for the escape of lodged matter: thus a seton passed from the upper part of the opening of pole-evil, through

the upper part of the integuments of the neck, as low as the sinues run, will often effect a cure without farther application. The same with fistulous withers, which sometimes run under the shoulder blade, and appear at the arm point; in which cases a blunt seton needle, of sufficient length to be passed down to that point, and to be then cut down upon, will form the only efficient mode of treatment. Setons may be passed in domestic farriery, with a common packing needle and a skein of thread, or piece of tape: but in professional farriery they are made by a proper needle armed with tape or lamp cotton, or skeins of thread or silk smeared over with digestive ointment. When the seton needle is removed, the ends of the tape should be joined together, or otherwise knotted, to prevent them from coming out.

Rowels, in their intention, act as setons, and as irritating a larger surface, so when a general drain is required, they act better, as in grease, &c.: but when their action is confined to a part only, setons are more convenient. Any person may apply a rowel, by making an incision in the loose skin about an inch, separating with the finger its adherences around, and then inserting in the opening a piece of round leather with a hole in the middle, smeared with a blistering ointment. Then plug the opening with tow, and in three days, when the sup-

puration has begun, remove it. The rowel leather is afterwards to be daily moved and cleaned.

BLISTERING AND FIRING.

Blistering answers the same purposes as setons; and is first practised by first cutting or shaving the hair from the part, when the blistering ointment should be well rubbed in for ten minutes, or a quarter of an hour. Some of the ointment, after the rubbing, may be smeared over the part. The head of the horse should now be tied up to prevent his gnawing or licking. If a neck cradle be at hand it may also for safety be put on; in which case the head may be let down the third day.

A neck cradle for blistered horses is very convenient for other occasions also, when the mouth is to be kept from licking or biting other parts; or to keep other parts from being rubbed against the head. It is of very simple construction, and may be made by a dozen pieces of wood of about an inch and a half diameter, as old broom handles, &c. These bored at each end admit a rope to be passed through; and as each is passed on, a knot may be tied to the upper part of the pieces of the cradle two inches apart; and those which form the lower part, four inches; by which means the neck will be fitted by the cradle when it is put on, and the horse will be prevented from bending his head

to lick or gnaw parts to be protected. When the lower parts of the legs, particularly of the hinder, require blistering, it is necessary to bear in mind that in gross full horses, particularly in autumn, grease is very apt to follow blistering, and almost certainly if the back of the heels below the fetlock be blistered. First, therefore, smear this part over with lard or suet; and afterwards avoid touching it with the ointment. After blistering in summer, the horse is frequently turned out before the blistered parts are quite sound; in this case guard them from flies by some kind of covering, or they may become fly blown: and likewise the fourth or fifth day rub into the blistered part some oil or lard, to prevent the skin from cracking.

Sweating or liquid blisters are only more gentle stimulants, which are daily applied to produce the same effects on a diseased part without removing the hair. Of course less activity is expected; yet as the action is repeated, they are often more beneficial even than blistering itself: as in old strains and stiffnesses.

Firing, as requiring the assistance of an experienced practitioner, we shall not describe; it will be only necessary to point out that it is a more active mode of blistering, and that it acts very powerfully as a stimulant, not only while its effects last as blisters do, but also after its escharotic effect is over, by its pressure;

and in this way it is that it operates so favourably in bony exostosis, as splints and spavins; and in this way it is so useful in old ligamentary weaknesses; because by lessening the dilatibility of the skin, it becomes a continual bandage to the part.

CLYSTERING AND PHYSICKING.

Clystering should always be preceeded by *backcraking*, which consists in oiling one hand and arm, and passing them up the fundament, and by that means to remove all the dung balls that can be reached. The large pewter syringe for clystering, is neither a useful nor safe machine. A much better consists in a turned box pipe, to which may be attached a large pig or ox bladder, by which four or five quarts of liquid can be administered at one time.—The pipe should be previously oiled, by which means it passess more easily: the liquor should then be steadily pressed up; and when the pipe is removed, the tail should be held down over the fundament a little, to prevent the return of the clyster. In some cases of a spasmodic nature, as gripes and locked jaw, great force is made by the bowels to return the clyster, and nothing but continued pressure over the fundament can enable it to be retained. *Clysters* not only act in relaxing the bowels, but they may be used as means of nutriment when it cannot be taken by the mouth; as in locked

jaw, wounds of the mouth, throat, &c. &c. In locked jaw, it was observed by Gibson, that he kept a horse alive many days by clysters also, many medicines may be given more conveniently than by the mouth.

Physicking of horses. It is equally an error to refrain altogether from giving horses physic, as it is to give it on every occasion, as some do. Neither is it necessary for horses to be bled and physicked every spring and autumn, if they be in perfect health, and the less so, as at this time they are generally weak and faint from the change going on in their coats. Nor is it always necessary to give horses physic when they come from grass or a straw yard; provided the change from the one state to the other be very moderately brought about. But on such a removal, it certainly expedites all the phenomena of condition, and such horses are less likely to *fall to pieces*, as it is termed, afterwards. In various morbid states physic is particularly useful, as in worms, hide-bound, from too full a habit, &c. &c. It is not advisable to physic horses in either very cold or very warm weather. Strong physic is always hurtful: and all that physic can do is as well operated on by a mild as by a strong dose, with infinitely less hazard. No horse should be physicked whose bowels have not been previously prepared by mashing at least for two

days before. By these means the physic will work kindly, and a moderate quantity only is requisite. Most of the articles put into the purging ball for horses, to assist the aloes, are useless. Jalap will not purge a horse, nor rhubarb either. Aloes are the only proper drug to be depended on for this purpose, and of all the varieties of aloes, the socotorine and Cape are the best. Barbadoes aloes are also not improper, but are thought more rough than the socotorine. Blaine gives the following as the process.

Physicking process. The horse having fasted an hour or two in the morning from food, but having had his water as usual, give him his purge, and two hours after offer him a little chilled, but not warm water, as is often done by which horses are disgusted from taking any: it may be here remarked that in this particular much error is frequently committed. Many horses will drink water with the chill taken off, provided it be perfectly clean, and do not smell of smoke from the fire, kettle, or saucepan: but few, very few, will drink warm or hot water; and still fewer, if it be in the least degree greasy or smoky. He should have walking exercise as usual, moderately clothed: and altogether he should be kept rather more warm than usual. At noon mash again, and give a little hay, which should be repeated at

night, giving him at intervals chilled water.— On the following morning the physic may be expected to work; which, if it do briskly, keep the horse quiet: but should it not move his bowels, or only relax them, walk him quietly half an hour, which will probably have the desired effect. Continue to give mashes and warm water, repeating them every two or three hours to support him. When physic gripes a horse, give him a clyster of warm water, and hand rub the belly as well as walk him out. If the griping prove severe, give him four ounces of gin in half a pint of sound ale, which will soon relieve him. On the next day the physic will probably *set*, but should it continue to work him severely, pour down some boiled starch; and if this fail, turn to the directions under diarrhæa. The horse should return to his usual habits of full feeding, and full exercise, by degrees; and if more than one dose be to be given, a week should intervene. It is often requisite to make the second and third dose rather stronger than the first. A very mild dose of physic is likewise often given to horses while at grass in very warm weather, and without any injury. When worms, or skin foulness are present, the mercurial physic is deemed necessary, it is better to give two drachms of calomel in a mash the previous night, than to put it into the purging ball.

CASTRATION, NICKING, DOCKING &c.

The operations of castration, nicking, docking, and that of cropping,) which is now seldom practised,) all require the assistance of a veterinary surgeon; and it is only necessary to remark of them, that the after treatment must be the same as in all other wounds. To avoid irritation, to preserve a cool temperature and a moderate diet: and if active febrile symptoms make their appearance, to obviate them by bleeding, &c. It likewise is proper to direct the attention of the agriculturist who attends to these matters himself, that the moment the wound following any of these operations looks otherwise than healthy, locked jaw is to be feared, and no time should be lost in seeking the best assistance that can be obtained.

BLEEDING.

Bleeding is a very common, and to the horse a very important operation, because his inflammatory diseases, on account of the great strength of his arterial system, run to a fatal termination very soon, and can only be checked in the rapidity of their progress, by abstracting blood, which diminishes the momentum of circulation. Bleeding is more particularly important in the inflammatory diseases of the horse; because we cannot, as in the human, lower the circulation by readily nauseating the stomach. Bleeding also lessens irritation, particularly in the young

and plethoric, or those of full habit: hence we bleed in spasms of the bowels, in locked jaw, &c.; with good effect. Bleeding is general or topical. *General*, as from the neck, when we mean to lessen the general momentum. *Topical*, when we bleed from a particular part, as the eye, the plate vein, the toe &c. Most expert practitioners use a large lancet to bleed with; and when the habit of using it is acquired, it is by far the best instrument, particularly for superficial veins, where the blow might carry the fleam through the vessel. In common hands the fleam, as the more general instrument, is best adapted to the usual cases requiring the agriculturist's notice. Care should, however, be taken not to strike it with vehemence; and the hair being first wetted and smoothed down, it should be pressed close between the hairs, so that its progress may not be impeded by them. A ligature should be first passed round the neck, and a hand held over the eye, unless the operator be very expert, when the use of the fingers will dispense with the ligature. The quantity of blood taken is usually too small. In inflammatory diseases, a large horse, particularly in the early stage of a complaint, will bear to lose eight or ten quarts, and half the quantity may be taken away two or three times afterwards, if the violence of the symptoms seem to require it;

and the blood should be drawn in a large stream to do all the good it is capable of. After the bleeding is finished, introduce a sharp pin, and avoid drawing the skin away from the vein while pinning, which lets the blood escape between the vein and skin: wrap round a piece of tow or hemp, and next day remove the pin, which might otherwise inflame the neck. In drawing blood, let it always be measured: letting it fall on the ground prevents the ascertaining the quantity; it also prevents any observation on the state of the blood, which, if it forms itself into a cup-like cavity on its surface, and exhibit a tough yellow crust over this cavity, it betokens an inflammatory state of the body that will require further bleedings, unless the weakness forbid. After the bleeding, it now and then happens, from rusty lancets, too violent a stroke with the blood stick, or from drawing away the skin too much while pinning up, that the orifice inflames and hardens, and ichor is seen to ooze out between its edges.—Immediately this is discovered, recourse must be had to an able veterinary surgeon, or the horse will lose the vein, and perhaps his life.

[*From the Gentleman's new Pocket Farrier.*]

SADDLE HORSE.

When a horse is purchased for the saddle alone, it is to be presumed he must be clear of all defects, strike the fancy, entirely please the eye, and from this happy symmetry and due proportion of form, stand the second beauty in the world. When this is the case, he is seldom disposed of at too high a price. Amongst the great number of people in the United States, I am induced to believe, there are few good judges of a horse calculated for the saddle. Indeed they are better informed upon almost any other subject that can be mentioned. Yet the Virginians have a large number of fine horses, and are accused of devoting too much attention to that beautiful animal. Among all the difficulties attending the affairs of common life, there is not, perhaps, a greater than that of choosing a beautiful, an elegant, or good horse. Nor will this appear strange, when we consider the number of circumstances that are to be taken into consideration, with regard to shape, size, movements, limbs, marks, eyes, colour, age, &c. &c.—which are so various that it would fill a volume to describe, and indeed the best judges are often obliged to content themselves with guessing at some things, unless they have sufficient time to make a

thorough trial. If I were asked what were the two most beautiful objects in nature, I would answer, that woman, lovely woman, before whose charms the soul of man bows with reverence and submission, stands unparalled; next to this matchless paragon, a beautiful horse displays nature in her highest polish and greatest perfection. His gay and cheerful appearance, proudly prancing and bounding, his elegance of shape, smoothness of limbs, polish of skin, due proportion of form, and gracefulness of action, united to a mild, soft, faithful and patient disposition, raise him far above the rest of the brute creation. I shall now proceed to lay down some rules, and to give some hints, for the examination of a horse previous to a purchase being made, to prevent the liberty of exaggeration, which is too frequently taken by dealers in those animals, and which too often terminates to the serious injury of the purchaser.

It is to be much lamented, that men who entertain a proper idea of honour, in all the common affairs of life, so soon as they become the owner of a horse, feel at liberty, without being sensible of doing violence to their morals, to knock off two or three years from his real age, and express themselves with apparent delight, of services, gaits and qualities, to which he never had any sort of claim or pretensions;

carefully keeping a secret every vice and defect to which he is subject. I do not pretend to say this is the case with all who exchange or sell a horse—but that it has often occurred, no person will deny. If a fraud can be practiced at all, it is sufficient reason for the inexperienced and unsuspecting to be placed on their guard. When a horse is offered for sale, I would advise the purchaser to ask one question, viz: Is he in all respects perfectly sound? Should a cheat be practiced on you, an action would lie against the seller, and damages could be recoverable; but be your own judge, not permitting any declaration that may be made by the seller, to alter your opinion of form, age, condition, movements, action, &c. As the eyes of a horse are the most important organ, first let him undergo a strict examination, (in open daylight;) ascertain his age, examine his figure and action, guarding yourself with being too much pleased or fascinated with the appearance of a new object; view his feet and legs; large ridges on the hoofs, or very flat feet, discover a horse to be subject to founder: large gouty legs, with enlarged tendons, indicate strains and other injuries. Examine his hind legs, with great attention just below the hock, and inside the hind knee; if there is any unnatural prominence, or knot, unlike the other knee, it wears the appearance of a spavin,

which renders a horse of but little value. Splint, which appears on the inside of the fore legs, and wind-galls, upon the ancles, are unpleasant to the eye, but seldom produce serious lameness, they furnish plain proof that a horse has been serviceable, and are very seldom productive of any other injury than stiffness, as he advances in years. Ride yourself, for the purpose of trying his gaits and qualities—as a rider, accustomed to a horse by private signs, such as manner of riding, bearing on the bit, leaning backward or forward, holding the heels close to his sides, &c. can make a dull horse appear gay and spirited, a wild horse gentle, a stumbler clear footed; one that is blind appear to see, and a starting horse free from that objection, &c. Before mounting him examine his knees, to discover if they are skinned, the hair off, or scarred: those are strong symptoms of his politeness to a fault. Ride with your bridle loose over any uneven ground: if he is in the habit of stumbling, he will very readily inform you—then approach some object offensive to the sight: if he appears much alarmed, stopping suddenly, and attempt to turn round, paying but little respect to the bearing of the bridle, you may judge he has long been in the habit of that bad practice. Ride him in all his different gaits, to ascertain if they are smooth, easy, and agreeable; move him about a mile,

out and back, in full half speed; frequently stopping him to try his wind, also if he is spavined. If his wind has been injured, he will blow unnaturally; making a loud wheezing noise, with great difficulty of breathing. While warm, ride him in cold water above the belly; after which let him cool fifteen or twenty minutes, and if he is spavined, and has received temporary relief, by applications of any kind, the disease will make its appearance so plain, that you will discover evident marks of lameness. The spavin is often relieved for a time; and in a few instances, has been permanently cured by blistering, bathing with double distilled spirits, &c. The brisk exercise, &c. is intended to bring on a return of its effects, in case the animal should have had temporary relief from that distressing disease.

Having given such hints as I am persuaded will lead to the discovery of any material defects in a horse about to be purchased, I shall now proceed to the description of a horse that I consider elegant and fit for the saddle.

In order that he may have just claim to beauty and elegance, his head must be small, thin, bony and tapering; his countenance lively and cheerful; his ears quick of action, high, erect, narrow, thin, and pointing together; his eyes large, round, full of black, sparkling with cheerfulness, yet hushing his agitating passions

in order and obedience; his nostrils large and expanded, and when in motion, disclosing a deep red colour; his brow and forehead smooth, and not too flat; his nose somewhat rising, of good turn, and a little inclined to the roman shape; his neck long thin, delicate and arched; forming a beautiful gradation from the breast and shoulders; his main half the width of his neck, thin and smooth, his shoulders high, tapering, and thrown well back [this we should regard as of the first importance;] his breast plump, full, and of moderate width; his fore legs straight, flat, sinewy and thin; his arms large and muscular; his back short and not too much swayed for strength and durability, but pretty even and straight; his body rather round and swelling than flat, and of proportionable size; his flanks plump and full, and the last rib approaching near the hip bones; his hips and buttocks full, round and well covered with muscles; his chine broad; his tail well placed, and naturally or artificially elegant, which adds much to his figure and gay appearance; his thighs long, from the hip to the haunch bone large and bulging with muscles; his hocks broad, sinewy, bony and clear of puffs; his hind legs from the hock short, bending a little, rather than straight, flat and sinewy; his pasterns of modern length, small and bony; his hoofs cupped, small, round and smooth; his hind parts

not tucked, but of easy turn and graceful slope. When mounted, his appearance should be bold, lofty and majestic; his eyes shining with intrepidity and fire; his movements light and airy as a phantom, with a fairy step, that would scarcely break a dew drop; his actions smooth and graceful; his colour should suit the taste of the purchaser, though a mahogany bay is certainly the best colour; his marks large of irregular white, to light up the countenance; and at least *two white legs*,* which will add much to his beauty—though it must be acknowledged, that all parts of a horse that are white, are much more tender than any other colour. When a horse is rode by any person for you to judge of his gaits, you should have him moved towards you, from you, and finally by you; as you may have the opportunity of discovering if there is any turning in and out about his knees and ancles, before or behind, which is very objectionable. A well shaped horse will track as true; or his legs will follow each other in as direct a line, as the wheels of a well constructed carriage. For him to be considered a good riding horse, he should move with ease to himself and pass over the ground with great rapidity. Hard steps, short going,

*Here we differ decidedly with the author. We should not mind his having *one white foot* behind.

and great apparent labour, is offensive to the sight, unpleasant to the rider, and fatiguing to the horse himself. With respect to the colour of horses, people differ very widely; a black horse with white face and legs, a grey or a mahogany bay with white marks, when well kept, are all shewy colours; but for actual service, experience has proved, that dark colours without any white feet are far preferable; for who ever recollects to have seen a black, sorrel or bay horse, with a bald face and four white legs, distinguish himself on the turf, in four mile heats? I am inclined to believe there is no first rate race horse, of that description, within the United States.

I have perhaps stated some facts relative to horse jockies, in a manner so plain and candid, as to draw from them their displeasure. My object is not to offend, but to instruct and be useful to those who want experience on the subject, for which this little book is designed.

To bring a horse into condition. Not only should the purposes he is intended for be taken into account, but also his previous state. If he be taken up from grass with much flesh on him, it is evident that what is required is to remove the soft interstitial matter it may be supposed he has gained by green food, and to replace it by hard flesh; and also to produce a sleekness of coat and beauty of appearance.—

To accomplish these ends, the horse should be accustomed to clothing and the full heat of the stable by degrees only; and also by degrees only to the meditated change of food; which is best done by mashes. In two or three days a mild dose of physic may be given, during all which moderate exercise only should be given, as walking, but which may be continued two hours at a time. After the physic has set, begin to dress his coat, increase his exercise and his food, and accustom him to an increase of warmth. In four or five days time again mash him for two days, and give a second dose of physic, a very little stronger than the first. After this, still further increase his warmth, his exercise, and his food, by which his belly will be taken up, his flesh will harden; and his coat will begin to fall. A third dose of physic, or urine balls, &c. are only necessary in the training of hunters, &c. and even in these, a gradual increase of exercise, rather long continued than violent, with proper food, will effect the end, if not so quickly, more beneficial to the animal. *To bring a lean horse into condition*, a somewhat different plan should be pursued.— If from grass, still mash him for a day or two, by no means stint him in his water, and with his mash let oats also be soaked. If oats be speared or malted, it will produce flesh sooner. But even here, give the horse moderate walk-

ing exercise, and if he be not too much reduced, add a mild dose of physic to prevent his heels flying, or his getting hide bound by the increased food; but if great emaciation forbid the physic, give him nightly an alterative.— (*Vet Pharm* 126, No. 1.*) As his appearance improves gradually harden his food and increase his exercise.

Founder. The injury sustained by horses, called founder, is sometimes the effect of the cruelty of his master, and at other times brought on by injudicious treatment; but it is most frequently produced by carelessness, or a want of knowledge of the treatment necessary to those excellent animals on a journey.

Although the horse is endowed with the strength and powers of the lion, yet he seldom exerts either to the prejudice of his master.— On the contrary, he shares with him in his labours, and seems to participate with him in his pleasures. Generous and persevering, he gives up his whole powers to the service of his master—and though bold and interpid, he represses the natural fire and vivacity of his temper, and not only yields to the hand, but seems to consult the inclination of his rider.

But it must continue to be a matter of regret to every feeling mind, that these excel-

*Levigated antimony, 2 drachms. Cream of tartar, and flour of sulphur, each half an ounce.

lent qualities should be so often shamefully abused in the most unnecessary exertions; and the honest labours of this noble animal, thrown away in the ungrateful task of accomplishing the purposes of an unfeeling folly, or lavished in gratifying the expectations of an intemperate moment.

A horse may be foundered by excessive hard rides, permitting him to plunge deep into cold water, while hot and sweating, and drinking cold pond water, eating large quantities of new corn and fodder, and then briskly exercised; over feeding with bran alone whilst performing hard labour, drinking plentifully at every branch in travelling, feeding with more than a horse can eat after being half starved, violent exercise on a full belly, or not permitting a horse who has travelled in a hot sun all day, to cool thoroughly before he is given as much as he can eat, drink, &c. &c.

Symptoms of a Founder. The symptoms that indicate an approaching founder, are so few and so common, that the most ignorant persons will rarely be mistaken. Great heat about the legs, pasterns and ears, a soreness in the feet, together with a stiffness so great in all his limbs, that the animal frequently refuses to move, unless force is used—his flanks and lower part of his belly draws up. his hide becomes bound or tight, his legs thrown a little more

forward than in his usual or natural position; a constant thirst, and very often a considerable swelling of the ancles, &c. &c.

Remedy for a Founder. So soon as you are convinced that your horse is foundered, take from his neck vein at least one gallon of blood; give a drench of one quart strong sassafras tea, one tea spoonful of salt petre, and a quarter of an ounce of assafoetida, and do not permit him to eat or drink for five or six hours—at the expiration of which time, should he not be evidently better, repeat the bleeding, take half a gallon of blood, and give another drench: at night offer him some bran or oats, scalded with sassafras tea, and if it can be procured, let him have green food, fresh from the field, for it has the happy effect of opening the bowels and cooling the system: his feet should be nicely cleaned out and stuffed with fresh cow manure: his drink should be at least one half sassafras tea, with a small handful of salt thrown therein.

By the morning should the horse be better, nothing further is necessary, only being careful not to over-feed him. But should there be no change for the better, tie a small cord just above his knees, and with a lancet or phlebotomy bleed in a vein that runs around the coronet, just above the hoof: take from each leg a pint of blood: give a pound of salts dissolved in three

half pints of water, in form of a drench: keep his feet stuffed with fresh cow manure, and bathe his legs with equal parts of sharp vinegar, spirits and sweet oil or lard. By attention to these directions, in two or three days the horse will again be fit for service.

A horse in this unpleasant situation, requires great attention. Whenever they are foundered, they search for a bank of manure to stand on, which should always be prevented, as it increases the fever.

Horses slightly foundered, have sometimes been cured in a few hours, by standing them in a pond of water or mud, or by bleeding in the mouth, but those remedies are uncertain, and are not to be so much relied on, as those first recommended.

A foundered horse is generally very much reduced in flesh, before a cure is effected; and is always more subject to founder afterwards.

Large ridges on the hoofs or a turning up of the feet, are strong indications of old founders or other injuries.

[*From Loudon's Encyclopædia of Agriculture.*]

OF THE WORKING AND MANAGEMENT OF RIDING HORSES.

The managing and working of hackney or riding horses, includes what is required for them as pleasure horses for ordinary airings; and what they require when used for purposes of travelling or long journeyings. It embraces also their stable management in general, with the proper care of horse and stable appointments: all which are usually entrusted to a servant, popularly called a groom, whose qualifications should be moderate size, light weight, activity and courage, joined with extreme mildness and good temper; and above all a natural love of horses, by which every thing required is done as a pleasure for the animal he loves, and not as a task for those he is indifferent to.

The hackney for gentlemen's airings should be in high condition, because a fine coat is thought requisite; and here the groom ought to be diligent, that he may keep up this condition by regularity and dressing, more than by heat, clothing and cordials. Whenever his master does not use his horse, he must not fail to exercise him (but principally by walking,) to keep up his condition, and to keep down useless flesh and swellings of the heels. The horse appointments are to be peculiarly bright

and clean. The bridle should be billeted and buckled, that the bits may be removed to clean them without soiling the leather, and which cleaning ought not to be done with rough materials, but fine powder and polishing. On the return from exercise, they should be wiped dry and then oiled. Two pair of girths should be used, that a clean pair may always be ready, and the same if saddle cloths are used.

The preparation for, and the cure of a horse on a journey, involve many particulars which should not escape the eye of the master. The first is, is the horse in hard travelling condition? Next, do his appointments all fit, and are they in proper order? The bridle for journeying should always be a double curbed one. The snaffle can be ridden with certainly; but the snaffle cannot do the work of the curb, in staying a horse, in saving him from the ground under stumbling or fatigue; or throwing him on his haunches; or in lightening his mouth. The bridle should not be new, but one to which the horse is accustomed. It is of still more consequence that the saddle be one that the horse has worn before, and that fits him thoroughly. The girths should also be of the best material to prevent accidents; and if the saddle be liable to come forward, however objectionable the appearance, a crupper had better

be used. Some days before a long journey is attempted, if the shoes are not in order, shoe the horse; but by no means let it be done as you set off, otherwise having proceeded on the journey a few miles, you find that one foot is pricked, and lameness ensues; or, if this be not the case, one or more shoes pinch, or do not settle to his feet; all which cannot be so well altered as by your own smith.

It is always best to begin a long journey by short stages, which accustoms the horse to continued exertion. This is the more particularly necessary, if he have not been accustomed to travel thus, or if he be not in the best condition. The distance a horse can perform with ease, depends greatly on circumstances. Light carcassed horses, very young ones, and such as are low in flesh, require often baiting, particularly in hot weather; horses in full condition, above their work, and well carcassed, and such as are from seven, or ten, or twelve years old are better when ridden a stage of fifteen or twenty miles, with a proportionate length of baiting time afterwards, than when baited often with short stoppages: the state of the weather should also be considered; when it is very hot, the stages should be necessarily shorter.

To a proper consideration of the baiting times on a journey, the physiology of digestion should be studied. Fatigue weakens the

stomach. When we ourselves are tired, we seldom have much inclination to eat, and fatigue also prevents activity in the digestive powers. To allay these consequences, ride the horse gently the last two or three miles.— If a handful of grass can be got at the road side, it will wonderfully refresh your horse, and not delay you three minutes. In hot weather, let the horse have two or three go downs (gulps,) but not more, of water occasionally as you pass a pond; this tends to prevent excessive fatigue. Occasionally walk yourself up hill, which greatly relieves him, and at which time remove the saddle, by shifting which, only half an inch, you greatly relieve him; and during this time he may perhaps stale, which also is very refreshing to him. It may be as well, in a flinty country, to take this opportunity of examining that no stones are got into the feet likewise.

When a horse is brought into an inn from his journey, if he be very hot, first let him be allowed to stale; let his saddle be taken off, and with a sweat knife draw the perspiration away; then, with a rug thrown over him, let him be led out and walked in some sheltered place till cool, by which means he will not afterwards break out into a secondary and hurtful sweat: but by no means let an idle ostler hang him to dry without the stable. Being now dried, remove him to the stable, where, let some good

hay, sprinkled with water, be placed before him: if very thirsty, give three or four quarts of water now, and the remainder in half an hour, and then let him be thoroughly dressed, hand-rubbed, foot-picked, and foot-washed; but by no means let him be ridden into water; or, if the practice is customary, and cannot be avoided, let it be not higher than the knees, and afterwards insist on the legs being rubbed perfectly dry; but good hand-rubbing and light sponging is better than washing. Having thus made him comfortable, proceed to feed with corn and beans according as he is used.

To feed a horse when very hard ridden, or if weak and tender, it is often found useful to give bread, or bread with ale: if this be also refused, horn down oatmeal and ale, or gruel and ale. It is of the utmost consequence if the journey is to be of several days continuance, or if it is to consist of a great distance in one or two days, that the baitings are sufficiently long to allow the horse to digest his food: digestion does not begin in less than an hour, and is not completed in less than three; consequently any bait that is less than two hours, fails of its object, and such a horse rather travels on his former strength than on his renewed strength, and therefore it cannot continue. After a horse is fed he will sometimes lie down; by all means encourage this, and if he is used to do it, get him a retired corner stall for the purpose,

The night baiting of a journeying horse should embrace all the foregoing particulars, with the addition of foot stopping, and care that his stable be of the usual temperature to that to which he is accustomed; and that no wind or rain, can come to him: give him now a full supply of water; if he has been at all exposed to cold, mash him, or, if his dung be dried by heat, do the same; otherwise, let a good proportion of oats and beans be his supper, with hay, not to blow on half the night, but enough only to afford nutriment.

When returned home from a journey, if it has been a severe one, let the horse have his fore shoes taken off, and, if possible, remove him to a loose box, with plenty of litter, but if the stones be rough, or the pavement be uneven, put on tips, or merely loosen the nails of those shoes he has on; keep his feet continually moist by a wet cloth, and stop them at night if the shoes be left on; mash him regularly, and if very much fatigued or reduced, let him have malt or carrots, and if possible, turn him out an hour or two in the middle of the day to graze: bleeding or physicking are unnecessary, unless the horse shows signs of fear. If the legs be inclined to swell, bathe them with vinegar and chamber ley, and bandage them up during the day, but not at night, and the horse will soon recover to his former state.

BLIND STAGGERS.

The following article comes from a respectable source, and is entitled to consideration, particularly where the distemper it is designed to remedy, prevails. *N. Y. Eve. Post.*

“This disease appears to be a compression upon the brain, caused by a collection of wind and matter in the forehead. The writer witnessed a cure effected in the following manner: A hole was bored with a nail gimblet through the skull, on the curl of hair central between the eyes. In various instances he has heard of its being applied with uniform success. This remedy was discovered by an attempt to kill, and thus relieve a horse from the distress of this disease. His skull was fractured by the stroke of an axe. The morning following the horse was found feeding apparently well. The remedy may be applied by any person, as the horse very soon becomes helpless after the attack, and immediate relief is afforded by letting out the matter, &c.

“Those who are too timid to try the above remedy, may resort to one less severe, and as the writer has understood from a creditable source, equally successful. Make a vertical incision in the skin between the eyes; separate it from the skull, so as to make a sufficient cavity to contain a gill of salt. A cure will very soon be effected,—*A friend to a valuable animal.*

(From Loudon's *Encyclopædia of Agriculture*.)

THE VETERINARY PHARMACOPEIA.

The following formulæ for veterinary practice have been compiled from the works of the most eminent veterinary writers of the present day, as Blaine, Clark, Laurence, Peel, White, &c.; and we can from our own experience also, confidently recommend the selection to the notice of agriculturists, and the owners of horses in general. It would be prudent for such as have many horses, and particularly for such as live at a distance from the assistance of an able veterinarian, to keep the more necessary articles by them in case of emergency: some vendors of horse drugs keep veterinary medicine chests, and where the compositions can be depended on, and the uncompounded drugs are genuine and good, one of these is a most convenient appendage to every stable. The best arranged veterinary medicine chest we have seen, was in London, at the veterinary laboratory of Youatt, of Nassau street, Middlesex Hospital.

The veterinary pharmacopeia for oxen, calves, and sheep has been included in the arrangement. When any speciality occurs, or where distinct recipes are requisite, they have been carefully noticed; it will, therefore only be necessary to keep in mind, that with the exception of acrid substances, as mineral acids,

&c., which no cattle bear with equal impunity with the horse, the remedies prescribed require about the following proportions. A large ox will bear the proportions of a moderate sized horse; a moderate sized cow something less; a calf about a third of the quantity; a sheep about a quarter, or at most a third of the proportions directed for the cow. It is also to be remarked, that the degrees in strength in the different recipes, are usually regulated by their numbers, the mildest standing first.

Aperatives.

1

Levigated antimony, two drachms.

Cream of tartar.

Flour of sulphur, each half an ounce.

2

Cream of tartar,

Nitre, of each half an ounce.

3

Æthiops mineral,

Levigated antimony,

Powdered rosin, each three drachms.

Give in mash, or in corn and bran a little wetted, every night, or make into a ball with honey.

Tonic Aperatives.

1

Gentian, Aloes, Ginger, Blue vitriol, in powder, of each one drachm.

Oak bark in powder, six drachms.

2

Winter's bark in powder, three drachms.

Green vitriol, do, one and a half drachm.

Gentian, do. three drachms,

Make either of these into a ball with honey,
and give every morning.

3

White vitriol, one drachm.

Ginger or pimento ground, two drachms.

Powdered quassia, half an ounce.

Ale, eight ounces. Mix, and give as a drink.

4

Arsenic, ten grains.

Oatmeal, one ounce.

Mix, and give in mash or moistened corn
nightly.

*Astringent mixtures for Diarrhæa, Lax or
Scouring*

1

Powdered ipecacuanha, one drachm.

Do. opium, half a drachm.

Prepared chalk, two ounces.

Boiled starch one pint.

2

Suet, four ounces; boiled in milk eight ounces.

Boiled starch, six ounces.

Powdered alum, one drachm.

The following has been very strongly re-
commended in some cases, for the lax of hor-
ses and cattle.

Glauber's salts, two ounces.

Epsom do. one ounce

Green vitriol, four grains.

Gruel, half a pint.

When the lax or scouring at all approaches to dysentery or molten grease, the following drink should be first given.

Castor oil four ounces.

Glauber's salts (dissolved,) two ounces.

Powdered rhubarb half a drachm.

Powdered opium, four grains.

Gruel, one pint.

Astringent Balls for Diabetes or pissing evil.

Catechu, (Japan earth) half an ounce.

Alum powdered, half a drachm.

Sugar of lead, ten grains.

Conserve of roses to make ball.

Astringent paste for Thrush, Foot root, foul in the Foot &c.

Prepared calamine,

Verdigris, of each half an ounce,

White vitriol,

Alum, of each half a drachm.

Tar, three ounces: mix.

Astringent washes for cracks in the heels, wounds, &c.

Sugar of lead, two drachms.

White vitriol, one drachm.

Strong infusion of oak, or elm bark, one pint:
mix.

2

Green vitriol, one drachm.

Infusion of galls, half a pint.

Mix, and wash the parts three times a day.

Powder for Cracks, &c.

3.

Prepared calamine one ounce,

Fuller's earth powdered,

Pipe clay, do. of each two ounces.

Mix, and put within gauze, and daub the
moist surfaces of the sores frequently.

Astringent Paste for Grease.

1

Prepared calamine,

Tutty powdered,

Charcoal do. of each two ounces.

Yeast enough to make a paste.

2

To the above, if more strength be required,
add of alum and verdigris, each a drachm.

Astringent Wash for Grease.

3

Corrosive sublimate, two drachms,

Spirit of wine or brandy, one ounce,

Soft water, ten ounces.

Rub the sublimate in a mortar with the spirit
till dissolved, then add the water, This is a

strong preparation, and has often proved successful in very bad cases of grease, which have resisted all the usual remedies.

Blisters,

1. A general one,

Cantharides powdered, two ounces,
Venice turpentine, powdered, two ounces
Rosin, do.
Palm oil or lard, two lbs.

Melt the three latter articles together, and when not too hot stir in the spanish flies

2

A strong cheap Blister, but not proper to be used in fevers or inflamations, is of the lungs, bowels, &c.

Euphorbium powdered, one ounce,
Oil of vitriol, two scruples,
Spanish flies, six ounces,
Palm oil or lard,
Rosin, of each one lb.
Oil of turpentine, three ounces.

Melt the rosin with the lard or palm oil.— Having previously mixed the oil of vitriol with an ounce of water gradually, as gradually add this mixture to the melted mass; which again set on a very slow fire for ten minutes more; afterwards remove the whole, and when beginning to cool, add the powders previously mixed together.

3

A Mercurial Blister for Splints, Spavins, and Ringbones.

Of either of the above, four ounces,
Corrosive sublimate finely powdered, half a
drachm.

4

Strong Liquid Blister.

Spanish flies in gross powder, one ounce,
Oil of origanum, two drachms,
Oil of turpentine, four ounces,
Olive oil, two ounces.

Steep the flies in the turpentine three weeks
strain off, and add the oil.

5

Mild Liquid or Sweating Blister.

Of the above, one ounce,
Olive oil or goose grease, one half ounce.

Clysters, a Laxative one.

1

Thin gruel or broth, five quarts,
Epsom or common salts, six ounces.

Clyster for Gripes.

2

Mash two moderate sized onions,
Pour over them oil of turpentine, two ounces,
Capsicum or pepper, half an ounce,
Thin gruel, four quarts.

Nutritious Clyster.

3

Thick gruel, three quarts,

Strong sound ale, one quart: or

4

Strong broth, two quarts,

Thickened milk, two quarts.

Astringent Clyster.

5

Tripe liquor or suet boiled in milk, three pints;

Thick starch, two pints,

Laudanum, half an ounce: or

6

Alum whey, one quart,

Boiled starch, two quarts.

Cordial Balls.

Gentian powdered, four ounces,

Ginger do., two ounces,

Coriander seeds do., four ounces,

Carraway do., four ounces,

Oil of aniseed, a quarter of an ounce.

Make into a mass with honey, treacle, or lard, and give one ounce and a half for a dose.

Chronic Cough Balls.

Calomel, one scruple,

Gum ammoniacum,

Horse radish, of each two drachms,

Balsam of Tolu,

Squills, each one drachm.

Beat all together, and make into a ball with honey, and give every morning fasting.

Drink for the Same.

Tar water,
Lime water, of each half a pint,
Tincture of Squills, half an ounce.

Powder for the same.

3

Tartar emetic, two drachms,
Powdered foxglove, half a drachm,
Powdered squill, half a drachm,
Calomel, one scruple,
Nitre, three drachms.

Give every night in a malt mash.

Diuretic Balls.

Rosin, yellow, one pound,
Nitre, half a pound,
Horse turpentine, half a pound,
Yellow soap, quarter of a pound.

Melt the rosin, soap and turpentine, over a slow fire; when cooling, add the nitre. For a strong dose, an ounce and a half; for a mild one, an ounce. It should be kept in mind that mild diuretics are always equal to what is required; and that strong diuretics are always hurtful.

Diuretic Powders.

Yellow rosin powdered, four ounces,
Nitre do., eight ounces,
Cream of tartar do., four ounces.

Dose—Six, eight, or ten drachms nightly, which some horses will readily eat in a mash.

Urine Drink,

Glauber salts, two ounces.

Nitre, six drachms.

Dissolve in a pint of warm water.

Embrocations—Cooling for Inflammations,

1

Goulard's extract, half an ounce,

Spirit of wine or brandy, one ounce,

Soft water, one quart.

2

Mindererus spirit, four ounces,

Water, twelve ounces.

For Strains.

Bay salt, bruised, half a pound,

Crude sal ammoniac, two ounces,

Sugar of lead, quarter of an ounce,

Vinegar, one pint and a half,

Water, one pint.

For the Eyes.

1

Sugar of lead, one drachm,

White vitriol, two scruples,

Water, one pint.

2

Brandy, one ounce,

Infusion of green tea, four ounces,

Tincture of opium, two drachms,

Infusion of red roses, four ounces.

3

Rose water, six ounces.

Mindererus spirit, three ounces.

4

Corrosive sublimate, four grains,

Alcohol, one ounce,

Lime water, one pint.

5

Alum powdered, one drachm,

Calomel, half a drachm,

Mix, and insert a little at one corner of the eye. The custom of blowing it in alarms the horse.

Fever Powders.

1

Tartar emetic, two drachms,

Nitre, five drachms.

2

Antimonial powder, two drachms,

Cream of tartar,

Nitre, of each four drachms.

Fever Drink.

3

Sweet spirit of nitre, one ounce,

Mindererus spirit, six ounces,

Water, four ounces.

Epidemic Fever Drink.

4

Sweet spirit of nitre, one ounce,

Simple oxymel, six ounces,

Tartar emetic, three drachms.

Malignant Epidemic Fever.

5

Simple oxymel,
 Mindererus spirit,
 Beer yeast, of each four ounces,
 Sweet spirit of nitre, one ounce.
Fumigations for purifying infected stables, sheds.
 Manganese, two ounces,
 Common salt, do.
 Oil of vitriol, three ounces,
 Water, one ounce.

Put the mixed manganese and salt into a bason; then having before mixed the vitriol and water very gradually, pour them by means of tongs, or any thing that will enable you to stand at a sufficient distance, on the articles in the bason gradually. As soon as the fumes rise, retire and shut up the door close.

Hoof Liquid.

Oil of turpentine, four ounces,
 Tar, four ounces,
 Whale oil, eight ounces.

This softens and toughens the hoofs extremely, when brushed over them night and morning.

Purging Medicines.

Balls—very mild,

Aloes powdered, six drachms,
 Oil of turpentine, one drachm.

Mild.

Aloes powdered, eight drachms,

Oil of turpentine, one drachm.

Strong.

Aloes powdered, ten drachms,

Oil of turpentine, one drachm.

The aloes may be beaten with treacle to a mass, adding, during the beating, the oil of turpentine. Allspices, oil of tartar, cream of tartar, jalap, &c. are useless, and often hurtful additions.

Liquid Purge.

Epsom salts dissolved, eight ounces,

Castor oil, four ounces,

Watery tincture of aloes, eight ounces.

Mix.—The watery tincture of aloes is made by beating powdered aloes with the yolk of egg, adding water by degrees; by these means half an ounce of aloes may be suspended in eight ounces of water; and such a purge is useful when a ball cannot be got down, as in partial locked jaw.

Scalding Mixture for Pole Evil.

Corrosive sublimate finely powdered, one dr.

Yellow basilicon, four ounces.

Foot Stoppings.

Horse and cow dung, each about two pounds,

Tar, half a pound.

*Wash for coring out, destroying Fungus, or proud
Flesh, &c. &c.*

Lunar caustic, one drachm,

Water, two ounces.

Wash for Mange.

Corrosive sublimate, two drachms,
 Spirit of brandy or wine, one ounce,
 Decoction of tobacco,
 Ditto of white hellebore, of each one pint.

Dissolve the mercury in the spirit, and then
 add the decoctions.

Ointments for Healing.

1

Turner's cerate, four ounces,
 White vitriol powdered, half a drachm,
 Lard, four ounces.

For Digesting.

2

Turner's cerate, four ounces,
 White vitriol, one drachm,
 Yellow basilicon, five ounces.

For Mange.

Sulphur vivum, eight ounces,
 Arsenic in powder, two drachms,
 Mercurial ointment, two ounces,
 Turpentine, two ounces,
 Lard, eight ounces.

Mix and dress with every morning.

*For Scab or Shab in Sheep, Mallenders and Set-
 tenders in Horses, and Foul Blotches and
 Eruptions in Cattle, in general.*

Camphor, one drachm,
 Sugar of lead, half a drachm,
 Mercurial ointment, one ounce.

FOALS OR COLTS.

To raise the best Colts, the first step is to procure the best Brooding Mares, then put them to the best Horses, and give the Colts good keeping, particularly during the first winter after they are weaned. The proper time for weaning is the beginning of foddering time; and then they ought to be put in a stable by themselves, kept on good hay, and fed regularly twice a day, during winter, with oats, or some other nourishing food. The next summer they ought to have good pasture.

Colts are frequently spoiled by poor keeping at the time they require the best; and this, as is the case with all other young animals, is during the first winter. After this they do not require better keeping than is requisite for other Horses. If Colts be not well kept the first winter, they are very apt to get stunted; and of this they never wholly recover. If Farmers would pay more attention to keeping their Colts in the best manner, as well as a due attention to the selection of Breeding-mares, and of Horses for covering, we should soon find the breed of Horses in our country much improved.

SURFEIT.

A disease to which Cattle, and particularly Horses are liable. In Horses, it is generally

the effect of intense labor, or overheating.—The skin becomes dry and full of dander, or of scabs, if the disease be more inveterate.—The hair of the animal stands out, and he has a dull sluggish look.

Some have merely this look and appearance of the hair, while they grow lean and hide-bound, without any irruptions of the skin.—Some have what is called a wet surfeit, in which case sharp thin humors run from the scabs. This is often attended with great heat, inflammations and sudden swellings of the neck, which causes great quantities of briny liquor to issue from that part; and if not allayed, will collect on the withers, and produce the fistula, or about the head, and produce the pollevil.

To cure the dry surfeit, the author of "*The Complete Farmer*" directs, first, to take away three or four pounds of blood, and then give the following purge, which will work as an alterative, and should be repeated once a week, for some time:

"Take succotrine aloes, six drachms, or one ounce; gum guaiacum, half an ounce; diaphoretic antimony and powder of myrrh, of each two drachms; and make the whole into a ball, with syrup of buckthorn."

In the intermediate days an ounce of the following powder should be given, morning and evening, with his feed:

“Take native cannabar or cinnabar of antimony, finely powdered, half a pound; crude antimony, in fine powder, four ounces; gum guaicum in powder, four ounces; make the whole into sixteen doses, for eight days.”

The medicine must be repeated till the horse coats well, and the symptoms of the disease disappear. If the scabs do not come off anoint them with mercurial ointment. This ointment alone, well rubbed into the blood, and aided by purges, will commonly effect a cure.

For the wet surfeit bleed plentifully, avoiding externally all repelers, and in the morning while fasting, give cooling physic twice a week composed of four ounces of lenitive electuary, four of cream of tartar, and four of Glauber's salts, quickened with a little jalap.

After three or four of these purgings, give two ounces of nitre, made into a ball with honey, every morning for a fortnight; and if successful, repeat this a fortnight longer. The above may also be given with the food of the Horse; or a strong decoction of logwood may be given alone, at the rate of two quarts a day. Where the disease proves obstinate, the medicine must be continued a considerable length of time, to prove effectual.

The Horse should be kept dry and his food should be cool and opening. If he be hide-bound give him fenugreek seed for some time.

Where the disorder proceeds from worms, give the mercurial physic, and afterwards the cinabar powder, as above directed.

The author, from whose book the above directions are taken, observes, however, that as this disease is not always original but attendant on others, in the cure, regard should be had to the first cause, and thus the removal of the complaint may be variously effected.

TUMORS.

When Tumors appear on the poll, withers, under the jaws or in the groins of Horses, they should be forwarded by ripening poultices of oatmeal boiled soft in milk, mixed with oil and lard, and applied twice a day, till the matter is perceived to grow soft and move under the fingers; and then it should be let out by a sufficiently large opening with the lancet. Let the opening be full as far as the matter extends. After cleaning the sore, apply pledgits of tow spread with a salve, or ointment, made of Venice turpentine, beeswax, oil of olives, and yellow rosin; and let these be administered twice a day, if the discharge is great, till a proper digestion takes place, when it should be changed for pledgits spread with the red precipitate ointment, applied in the same manner.

Should the sore not digest, but run a thin water, foment it as often as you dress it, and apply over the dressing a strong beer-poultice.

and continue this till the matter grows thick and the sore florid. Should any proud flesh get into the sore, wash it as often as you dress it with a solution of blue-vitriol in water, or sprinkle it with burnt alum and precipitate.— If these should not prove sufficiently powerful apply caustics, by washing it with a solution of half an ounce of corrosive sublimate in a pint of water. Where the sore can be tightly compressed with a bandage, however, these funguses may be generally prevented.

Tumors caused by bruises, should if necessary, be bathed with hot vinegar or verjuice; and then a flannel cloth be wrapped round the part, if it can be done. If this does not abate the swelling, especially if it be in either of the legs poultice it twice a day, after bathing it with wine-lees or beer-grounds and oatmeal or with vinegar, oil and oatmeal, till the swelling abates; when in order to disperse it entirely, let it be bathed twice a day with a mixture of two ounces of crude sal ammoniac in a quart of chamberlie, having rags dipped in this and laid on.

Where the extravasated blood is not dispersed by these means, let an opening be made in the skin and let the blood out, and then heal the wound.

The following are the directions for treating ulcers, in Horses particularly.

The first point is to bring them to discharge a thick matter, which may generally be effected with the green ointment, or that together with precipitate. Should the sore still discharge a thin matter, apply balsam, oil of turpentine, melted down with a common digestive and the strong beer poultice over them.

The part affected should be well warmed with fomenting, to quicken the circulation, &c. If the lips of the sore grow callous, pare them down with a knife, and rub a little caustick over them.

Where proud flesh appears, let it be carefully suppressed. If it has sprouted above the surface, pare it down with a knife, and rub the remainder with caustic. To prevent its rising again, sprinkle the sore part with equal parts of burnt alum and red precipitate; or wash it with sublimate water, and dress it with dry lint, and draw the bandage tightly over the sore; for a tight bandage is the most effectual in dissipating these funguses.

All the sinuses or cavities, should be laid open as soon as discovered, after bandages have been ineffectually tried; but where the cavity penetrates deep into the muscles, and a counter-opening is impracticable or hazard-

ous; or where the integuments of the muscles are constantly dripping or melting down; these injections should be used. For this purpose, take of Roman vitriol half an ounce, dissolve it in a pint of water, decant it into another bottle, and add a pint of camphorated spirit of wine, the same quantity of the best vinegar, and two ounces of Egyptiacum. This mixture is also good for ulcerated greasy heels, which it will cleanse and dry.

These cavities sometimes become lined inside with a callous substance; and in such case they should be laid open, and the hard substance cut away. Where this cannot be done scarify them, and apply the precipitate, rubbing them now and then with caustic, butter of antimony or equal parts of quicksilver & aquafortis.

When the bone under the ulcer has become carious, which may be ascertained by probing it, it should be laid bare, in order that the rotten part may be removed. In this case all the loose flesh should be removed, the bone scraped smooth to the sound part, and then dressed with dry lint, or with pledgits dipped in the tincture of myrrh or euphorbium.

Where the cure does not properly succeed, mercurial physic should be given, at proper intervals; and to correct the blood and juices, the antimonial and alterative powders, with a decoction of guaiacum and lime-water are good.

YELLOWWS.

When horses are troubled with this disorder it is known by the yellowness of the eyes, and of the inside of the mouth. The animal becomes dull and refuses to eat. The fever and the yellowness increase together. His urine is voided with difficulty, and looks red after it has lain some time. The off-side of the belly is sometimes hard and distended. If the disorder be not checked, he becomes frantic.

In old Horses when the liver has been long diseased, the cure is hardly practicable, and ends fatally with a wasting diarrhoea; but when the disease is recent and the horse young, there is no danger, if the following directions are observed:

First, bleed plentiful and give the laxative clyster, as Horses having this disorder are usually costive; and the next day give him a purge of an ounce and a half of cream of tartar, half an ounce of Castile soap, and ten drachms of succotrine aloes. Repeat this two or three times, giving intermediately the following balls and drink: Take Ethiop's mineral half ounce; millipedes the same quantity; Castile soap one ounce; make this into a ball, and give one every day, and wash it down with a pint of this decoction: Take madder-root and tumerick, of each four ounces; burdock-root sliced, half a pound; Monk's rhubarb, four ounces; boil

the whole in a gallon of forge-water down to 3 quarts; strain it off and sweeten it with honey.

Balls of Castile soap and turmerick may also be given for this purpose, three or four ounces a day, and will in most cases succeed in effecting a cure.

By these means, the disorder generally abates in a week, which may be seen in the alteration of the Horse's eyes and mouth; but the medicines must be continued till the yellowness is removed. Should the disorder prove obstinate, you must try more potent medicines, *viz.* Mercurial physic repeated two or three times at proper intervals, and then the following balls: Take salt of tartar, two ounces; cinabar of antimony, four ounces; live millipedes and fillings of steel, of each four ounces; Castile soap, half a pound: make these into balls of the size of hen's eggs, and give one of them night and morning with a pint of the above drink. On the recovery of the Horse, give him two or three mild purges, and if he be full and fat put in a rowel.

WHEEZING.

A disease of Horses commonly called broken wind; caused by surfeits, violent exercise when the belly is full; by being rode into cold water when very warm; or from obstinate colds not cured.

For the cure Dr. Bracken advises that the Horse should have good nourishment, much grain and little hay; and that the water given him to drink daily have a solution of half an ounce of saltpetre, and two drachms of sal ammoniac. It is said that the hay made of white weed will cure this disorder.

SCRATCHES.

This is a disease in the legs of horses, occasioned by bad blood, or too hard labor. The skin of the legs becomes cracked open, emitting a redish colored humor. To cure the disease, wash the cracks with soapsuds, and then rub them twice a day with an ointment of hogs lard, mixed with a little sublimate mercury.

Another says that this troublesome disorder may be effectually cured by the application of as strong a solution of copperas in water as can be made, and rubbing the legs up and down, with a cob, each time. A few applications will be sufficient.

NEAT CATTLE.

The diseases of Neat Cattle are various; and frequently new and uncommon diseases occur.

A disorder prevails among Neat Cattle, in the northern parts of this State, which is usually termed the *hoof ail*. It has ruined many hundred cattle in this county. It would seem

that the feet of the cattle first become diseased and then they are frozen during the course of the Winter; after which they are of no further value, except for their skins.

There is probably something in certain soils which is calculated to injure the feet of cattle in the Fall, and thus render them more liable to the frost of Winter. In Herkimer county, those cattle which are kept on farms of moist rich soil have been most liable to this disorder; and it is believed that such as are fed on sandy, sandy loam, or gravelly farms, have seldom suffered in this way. Probably it would be found, that pursuing the soiling husbandry, feeding the cattle with plenty of rich food, as has been before directed, and keeping them well littered in warm stables, would at once be the most profitable and effectual method of avoiding this disorder.

In the Spring, our cattle which have been poorly kept through the Winter, are subject to a wasting of the pith of the horn, which is usually called the *horn distemper*. It is sometimes in one horn only, and sometimes in both. The indications of the disease are, coldness of the horn, dullness of the eyes, sluggishness want of appetite, and a disposition to lie down. When the brain is affected, the animal will toss its head, groan, and exhibit indications of great pain.

To cure the disease, bore a hole with a small gimblet in the lower side of the horn, about an inch from the head, and the corrupted matter in the horn will run out. If this does not complete the cure, Mr Deane directs, that the horn have a mixture of rum, honey, myrrh and aloes thrown into it with a syringe; and that this be repeated till the cure be effected. Probably warm water thrown in would answer just as well; as the essential point seems to be to clean the horn of the corrupted matter.

Another disease to which our poorly kept cattle are subject in the Spring, is commonly called the tail sickness. In this case the tail becomes hollow and relaxed. The cure is effected, says Mr Deane, by cutting off a small piece of the tail, which will be attended with a small discharge of blood; or when the hollow part is near the end, cut a slit in it, one or two inches long, and this will effect a cure.

The *gripes* or *cholic* is mostly troublesome to young cattle. When attacked with it they lie down and get up incessantly, and keep striking their horns against any object that presents.— It is attended either with costiveness or scouring. In the former case they are to be treated with purgatives; and in the latter with restraints.

To stop the purging, give them half a pint of olive-oil sweetened with sugar; or a quart of

ale mixed with a few drops of laudanum, and two or three ounces of oil of sweet almonds.— To promote purging, give them five or six drachms of fine Barbadoes aloes, and half a pint of brandy, mixed with two quarts of water gruel, in a lukewarm state.

These are the directions of the "*Complete Grazier*," but it is believed, that other purgatives and restringents would answer as well.— In either case speedy attention to the beast is necessary, in order to prevent an inflammation of the intestines, which must prove fatal.

The *scouring* in Neat Cattle is known by the frequent discharge of slimy excrement, loss of appetite, loss of flesh, increasing paleness of the eyes, and general debility. The beast should be immediately housed and put to dry food, and this in the early stage of the disease, will generally effect a cure.

Should it, however, fail, it is directed in the work last mentioned, to boil a pound of mutton suet in three quarts of milk, till the former is dissolved. and give it to the beast in a lukewarm state; or in the obstinate cases boil half a pound of powdered chalk in two quarts of water, till it is reduced to three pints; add four ounces of hartshorn shavings, one of casia and stir the whole together. When cold add a pint of lime water and two drachms of the tincture of opium; keep the whole in a corked

bottle, and after shaking it before using, give one or two hornsful, two or three times a day, as the nature of the case may require. Sometimes, however, this disease proves incurable.

Cattle sometimes become *hoven*, as it is termed, owing to eating too much, when first turned into rich pastures, to swallowing potatoes, or other roots, without sufficient chewing, and to other causes. The stomach of the animal becomes distended with wind, and if a vent for this cannot be afforded the beast must die.

The usual remedy is to open a hole with a sharp-pointed knife, with a blade three or four inches long, between the hip and the short ribs, where the swelling rises highest, and insert a small tube in the orifice, till the wind ceases to be troublesome. The wound will soon heal again.

But some of the English Graziers have adopted an improved method of obviating this complaint. This is by providing a flexible tube, with a knob at one end; the tube with the knob end foremost, is run down the throat of the beast into its stomach, and then the confined air escapes through the tube. The operation is repeated, if necessary. The tube for a large ox should be upwards of six feet long, as that is about the length requisite to reach the bottom of the stomach.

The method recommended by Mr Young for curing this complaint is, to take three fourths of a pint of olive oil and a pint of melted butter, or hogslard, and pour this mixture down the throat of the beast; and if no favorable change be produced in a quarter of an hour, repeat the dose. For Sheep about a gill should in like manner, be given, and the dose repeated, if necessary. Mr Young asserts this to be a specific which will not fail of a cure in half an hour.

To prevent this disorder cattle should not be turned at first with empty stomachs into rich pastures; nor should they be allowed to feed on potatoes and some other roots, without their being first steam-boiled, or cut into pieces.— Where a beast, however, happens to get one of these in its throat, which cannot be forced down, take a smooth pliable rod and make a knob on the end, by winding and tying rags round it, and run this down its throat into the stomach, which will force all before it into that receptacle.

The *staggers* are easily known by the drowsiness, lethargy and staggering gait of the animal. This disorder is sometimes occasioned by plethora, or fullness of blood, and sometimes it is seated on the brain; in which case it is incurable, unless by trepaning. In the former case, the remedy is to keep the beast housed; and to bleed and purge it sufficiently.

The *overflowing of the gall*, which is sometimes called the *yellow*s or *jaundice*, is known by the yellow tinge in the mouth and eyes; and sometimes the whole body assumes a yellowish cast. The nose is dry; the udder of the Cow becomes swollen, and yields but little milk, which also becomes yellow and curdled, on being boiled; and sometimes the fore-teeth become very loose.

The beast affected with this disorder should be housed, and have two or three gentle purges; then give it, twice a day, a pint of beer, in which has been infused for three or four days, about an ounce to each quart of the filings of iron, and a small quantity of hard soap. Let the beast be well kept during the time with warm messes of bran and other nourishing food, to which some olive oil or other purgative medicine should be added, if the beast be costive.

For curing this disorder Mr Deane directs to take an egg and empty it of its white, retaining its yolk, and fill the cavity with equal quantities of soot, salt and black pepper; draw out the tongue of the beast, and with a smooth stick push the egg down its throat. Repeat this two or three mornings and, he says, it will seldom fail of a cure.

Sometimes, however, this disorder does not yield to the power of medicine; but at length turns to the *black jaundice*, which is incurable.

The disorder called *red-water*, or voiding bloody urine, it is believed, has seldom or never prevailed in this country. Its attacks are mostly on young beasts, which in that case are seen leaving the herd, and exhibiting frequent ineffectual attempts to void urine.

The British practice has been to house the beast, and give it two doses of glauher salts, of a pound each in two succeeding days. But this practice is condemned in "The Complete Grazier," and instead of purgatives, strong decoctions of Peruvian or white oak bark and alum are recommended to be given, in such quantities and at such times as the violence of the disease may require.

The *pantasia* is known by the panting or heaving of the animal's flanks, which is accompanied with trembling and a decay of flesh.—House the beast, and give it every six hours, during the continuance of the chilly symptoms a quart of strong beer, in which a table spoonful of laudanum, another of ground ginger, and two of the spirits of hartshorn have been infused. The beast should be fed on sweet hay, and well littered. Its drink should be warm water with a little nitre dissolved in it, if there be symptoms of fever. As it gains strength let it out in the middle of the day, until such time as it has fully recovered.

The *inflammation of the liver* is indicated by

fever, difficult breathing, a swelling near the shorter ribs, and in Cows, a remarkable distension about the womb. Cattle affected with this disorder will never fatten. It is sometimes hereditary in certain breeds; in which case it is incurable. In the work last mentioned it is recommended to house the beast, bleed it profusely, and give it the following medicine, in a tepid state, viz:

Saltpetre and glauber salts, of each two ounces; Venice treacle, mithridate, and white ginger pulverized, of each one ounce; let these be boiled in three pints of water, in which may be gradually added one gill of oil of sweet almonds the whole being stirred together. This is sufficient for one dose, which should be repeated the succeeding day. Warm messes of bran should be the principal diet of the beast, till it has recovered.

The *inflammation of the lungs* is known by a shortness of breath and a painful cough. The animal looks dull, the skin is hot and harsh, and a copious discharge of thick ropy phlegm issues from its mouth. House the beast, and bleed it plentifully and give it a dose composed of the flour of sulphur, balsam of sulphur, syrup of clotsfoot and oil of sweet almonds, of each an ounce blended together. If the above treatment produces no visible alteration in eighteen hours, repeat it. Probably any other purge

would answer as well as the above. Let the beast be kept comfortable, and have some exercise every day till it recover.

The *locked jaw* is similar to that in the human frame, is caused by similar means and requires a similar treatment. If the beast be hardy, opiate frictions, and dashing on of cold water is recommended. If it be of slender constitution, opiate frictions and warm fomentations of the part affected, is directed. As the beast cannot swallow let gruel be poured down its throat with a horn, till the disorder is removed.

The indications of *colds* in cattle, to which they are mostly liable in the Spring, are hollowness of the flanks, roughness of the coat, heat of the breath, and running at the eyes.—House the beast, keep it warm, and if it be very feverish bleed it pretty freely, and let its drink be warm, and have some nitre dissolved in it. Expose it to the air at first, in the middle of pleasant days, when recovering.

Cattle are sometimes poisoned by eating poisonous plants, or by being bit with Mad-dogs, &c. In the latter case, if the wounded part be cut away shortly after the bite, and then be kept open for some time; it is perhaps, the only effectual remedy. Dr. Crouse's prescription for curing the bite of Mad-dogs, as made public in pursuance of a law of this State, is believed by many to be effectual, and is cer-

tainly worth the trial. It is believed that any medicine which is very strongly anti-spasmodic if given plentifully, and in a proper season, will counteract the effects of the bite of mad animals.

For the bite of Rattle snakes and most other vipers, a plentiful dose and repeated when necessary, of olive-oil, has been found effectual in most cases.

Other diseases of Neat Cattle, it may not be amiss to mention, which have at times prevailed in particular places. Some years since a very fatal disease, which principally attacked calves in the fall and yearlings in May and June, and sometimes older cattle, prevailed in Connecticut. It was called the *mortification*. Those in the best condition were most liable to it.

Its symptoms were an aversion to move, a swelling, most commonly in the region of the kidney, but sometimes in the shoulder, flank, leg, or side, &c. and in a short time the beast died with little pain, but with a very foetid smell. On examining the swellings they were found to contain a jelly and black blood. The cause was ascribed to fulness of habit; and a too sudden change from indifferent pastures into such as were very rich. Bleeding was recommended as a preventive. No cure was discovered.

A disease something similar to the above,

prevailed about sixty years since, in the north of England, which was commonly called the *black quarter*. Bleeding was found a preventive, but in very few instances was a cure effected after the beast was seized with the disorder. This was ascribed to too much succulent food, when given to beasts of full habit.

It would seem generally, that cattle in a plethoric state, when overfed with rich food, or when too suddenly surfeited with it, are suddenly indisposed and carried off before relief can be given. There are, however, epidemics among cattle as well as among men, the precise causes of which may oftentimes be difficult to ascertain. Generally speaking, it is believed, that among the horned race, either plentiful bleeding or purging, or both, will be found a preventive, and in most instances a cure, of the maladies which are usually most fatal to them from too full habit.

When oxen are long and hardly drove in muddy roads, particularly where the soil is calcareous, they are liable to soreness between their claws. This will make the beast lame; and when discovered, the part should be cleansed and healed with some proper ointment.— Sometimes from inattention to this, the part becomes horny; in this case the hard parts must be cut away, and the wounded flesh cured.

A general indication of health in Neat Cat

tle is a moist or wet nose, and when this is found dry it is a certain symptom of disease of some kind or other.

The udder is divided into as many apartments as there are teats, so that if one or more of these are diseased, this does not affect the rest. The milk of one teat may be good, and that of another bad. The udders of cows may be injured in various ways, and swellings and inflammations are the usual consequences.—These must be removed or the beast will be in danger.

Mr Deane speaking of hard swellings in the udder, which he calls the *garget*, recommends making a rowel or seton in the dewlap, and inserting therein a piece of the root of *mechoacan*, as large as a nutmeg, with a string fastened to it, so that it may be drawn out when the cure is effected; and this, he says, will cause a revulsion of the humor in the udder into the orifice in the dewlap, where it will be discharged. When the cure is effected, the piece of root is to be drawn out by the string. Probably a common rowel placed in the breast or dewlap, would answer the same purpose.

Where hard tumors have formed, the compilers of "The Complete Grazier" recommend to take of common hemlock (*conium maculatum*) dwarf or round leaved mallow (*malva rotundifolia*) and common millilot (*trifolium millilotus*)

of each a handful and boil them in water; with this wash the tumor, after it has opened; the water to be as warm as the beast can bear it; and after thus cleansing the part, cover it with a plaster of basilicon ointment.

The following is also recommended in the last mentioned work, in obstinate cases of ulcerated udders: Take gum ammoniac, gum galbanum, castile soap and extract of hemlock, of each one ounce; form them into eight bolus-ses, and give one every morning and evening.

It is observed in the same work that internal remedies are always necessary where the udder and teats are considerably inflamed, and for this purpose another internal medicine is mentioned, viz: Four ounces of nitre mixed with a pound of common salt; give two table spoonfuls of this powdered, in a gallon of thin water gruel, every three hours.

Where the inflammations are less violent and exhibit no symptom of increasing rapidly, it may answer to annoint the udder frequently, during the day, with fresh butter, or with a salve made of an ounce of castile soap, dissolved in a pint of sweet milk, over a gentle fire, or with an ointment made with the juice of the leaves of the thorn, mixed with hogs-lard; or the tumor may be annointed with a little mixture of camphor and blue ointment; and let

half a drachm of calomel be given in a hornful of warm beer, if the malady increase.

Where the teats are only sore they may be washed with soapsuds, and rubbed with an ointment made of white lead and goose grease; or fresh butter would, perhaps, do as well.

The proper position for the calf to lie in the calf-bed has already been mentioned; where, therefore, it is not presented in this position, at the time for its birth, and by reason of this the cow cannot deliver her burden, it becomes necessary, if possible, to place it properly. Where this cannot be done, the method of extracting it by a hook fixed in the under jaw, as before mentioned, may be frequently and successfully practised.

Sometimes the hinder parts of the Calf are foremost; and in this case it is best to extract it in that position, by proper force used for the purpose. Whatever assistance, however, may be requisite in these cases, should be given with care and judgment, minding to hurt the cow as little as possible.

Another impediment to calving, as noticed in the last mentioned work, is owing to a part of the natural passage becoming of so horny or firm a texture, that it will not yield or distend. When on due examination this is found to be the case, insert a sharp-pointed penknife with the forefinger to the back of it to guide it con-

rectly, and with this carefully cut the horny circle through, which will immediately give the animal the requisite relief, if proper assistance be also given.

In this case, as in others where the passage is wounded or torn, it should be bathed with a pint of camphorated spirit of wine, injected with a syringe; the beast should be housed and kept moderately warm, and well and dryly littered, and be fed with wholesome nourishing food, and with drink a little warmed.

The *falling down of the calf-bed* frequently happens after a laborious birth; though some cows are naturally disposed to this disorder.—Where this is apprehended it is directed in the last mentioned work that the cow should be carefully watched, and the placenta or cleaning removed without effusion of blood. After which the operator may gently replace the calf-bed, taking care not to withdraw his hand till the former begins to feel warm.

The following draft may then be given: Of bayberries, pulverized gentian root and coriander seeds, each an ounce; of anise-seed and juniper berries, each two ounces; together with half a pound of treacle, and the whole put into three pints of strong beer. After this it is advisable to lead the beast gently down a hill, if one be near, which will assist much in placing the calf-bed in its proper place, and render the

application of stays to the womb unnecessary. Where the calf-bed, however, comes down and no immediate aid can be had, the parts exposed should be laid on, and kept covered with a linen cloth; and when replaced, bathed with a mixture of new milk and spirits; after which the above treatment may be pursued.

Some cows have a peculiar shape of the hinder parts, which tends to produce this malady; and in such case it is perhaps difficult to prevent it, unless it can be done by keeping their hinder parts higher than usual, while confined to their stalls about the period of gestation.

The *puerperal fever* is caused by taking cold while calving. Cows thus affected should have housing and good treatment, as has been directed in other cases, and the head should be placed highest, in order to assist the natural discharges. In other respects they should be treated as in cases of violent colds, except that no blood should be taken, unless, perhaps, in violent cases, and then only at the commencement of the disorder.

Close attention should be paid to Cows, as well as to the females of other kinds of cattle about their periods of gestation. They often then stand in need of some skilful aids, which, if rendered in due season may save their lives: and which, if not thus afforded, may be of essential loss to the owner.

Calves are also liable to some diseases, and in some countries to such as do not prevail in others. In this, it is believed, they are subject to but few. One, however, which frequently attacks them is *looseness* or *scouring*. It is sometimes caused by their having the milk of the dam too soon; sometimes by too frequent changes of the milk which is given.

One method of cure is to stint the animal of its food, and give it once or twice while fasting, a hard boiled egg, mashed fine and well mixed with its milk. Another directs that powdered chalk, mixed with wheat-flour, and made into balls with gin (brandy would seem to be better) be given the animal, as a safe medicine.

Calves are also liable to *colds*; in which case they should have a treatment similar to older Neat Cattle.

We have read a theoretical essay of the late Dr. Rush on the disease of cattle, written with his usual ability. His theory is this: That similar causes produce similar diseases in the human and in the brute creation; and that the most proper cure for the disease, in either case is pretty much the same. He also contends that the diseases of each are often simultaneous, produced by the same generally prevailing causes.

We are aware that the most eminent of the descendants of *Æsculapius* have laid the found-

ation of their fame on some new theory, often more or less incorrect; but we are induced to concede to this, as being fundamentally true, and worthy of due consideration by all who attempt the healing art, upon cattle of every description.

We shall merely add that in Norfolk county in England, which is famous for its numbers of Neat Cattle, the *polled* breed is in almost universal use. The cows of this breed are excellent milkers; and their inability to be mischievous from their want of horns, would seem to entitle them to a preference.

Mr P. Cooper of New Jersey, however, deprives his horned cattle of their horns, when he thinks proper, by taking the calves when about a month old, and the horns have risen above the skin, and cutting off the knobs close with a chisel; then with a sharp gouge paring them off clean to the bone, searing the wounds thus made and filling them with hogs lard, which completes the operation.

SHEEP.

Sheep of all kinds are subject to fewer diseases in this country than in most others. This article shall, therefore, be concluded with noticing those most prevalent here, and the remedies for each, together with some slight notice of some which prevail abroad.

Those of grown Sheep are as follows :

The Scab. This appears first by the sheep rubbing the part affected, and pulling out the wool in that part with their teeth, or by loose locks of wool rising on their backs & shoulders.

The Sheep infected is first to be taken from the flock and put by itself; and then the part affected is to have the wool taken off as far as the skin feels hard to the finger, and washed with soap-suds and rubbed hard with a shoe-brush, so as to cleanse and break the scab.— Then annoint it with a decoction of tobacco-water, mixed with the third of lye of wood ashes as much grease as this lye will dissolve, a small quantity of tar and about an eighth of the whole mass of the spirits of turpentine. This ointment is to be rubbed on the part affected, and for some little distance round it, at three different times, with an interval of three days after each washing. With timely precautions this will always be found sufficient.

In very inveterate cases, Sir Joseph Banks says mercurial ointment must be resorted to; with great care, however, keeping the Sheep dry; the wool to be opened, and a streak to be made down the back, and thence down the ribs and thighs. Fine-wooled Sheep and Rams which have been much exhausted by covering are most subject to this disorder, and in fine-wooled flocks it is most difficult to cure. It is

said that it may be communicated even by a sheep lying on the same ground on which a scabby one had shortly before lain, or by rubbing against the same post.

Pelt-rot. In this disease the wool falls off, but the skin does not become sore, but it is covered with a white crust. Cure,—Full feeding, warm keeping and anointing the hard part of the skin with tar, oil and butter, mixed together.

Tick. As these occasion a constant scratching, they prove injurious to the wool, and they sometimes occasion the death of lean Sheep. Cure.—Blow tobacco-smoke into every part of the fleece by means of a bellows, the wool is opened and the smoke is blown in, and the wool is then closed. This is repeated over every part of the body, at proper distances.—It is quickly performed.

Staggers. A disease of the brain, which renders them unable to stand: Incurable by any means known which would warrant the cost.

Colds. The principal indication of this is the discharge of mucus from the nose. The cure has already been noticed. When this, however, becomes habitual with old sheep they should be killed off.

Purging. If any are severely afflicted in the spring with this, which sometimes happens after being turned out to grass, house them,

give them a dose of castor-oil, feed them with dry food, and give them some crusts of wheat bread. A slight purging will not hurt them.

Hove. Sheep, like Neat Cattle, when put into clover pastures, sometimes have their stomachs distended by wind, so that they will die if not relieved. The swelling rises highest on the left side, and in this place let the knife be inserted, or other means used, in the manner directed for Neat Cattle.

The diseases of Lambs are :

Pining. When the excrement of the Lamb becomes so glutinous as to fasten the tail to the vent, it must be washed clean and have the buttocks and tail rubbed with dry clay, which will prevent any further adhesion.

Purging. Put the lamb with its dam into a dry place and give her oats, old Indian corn or crusts of wheat bread. If the dam has not milk enough, give the lamb cow's milk boiled, or let it suck a cow.

Sometimes it may be found necessary to bleed sheep to allay some inflammatory disorder. Daubenton recommends bleeding in the lower part of the cheek, at the spot where the root of the fourth tooth is placed, which is the thickest part of the cheek, and is marked on the external surface of the bone of the upper jaw, by a tubercle sufficiently prominent to be very sensible to the finger, when the skin of the

cheek is touched. This tubercle is a certain index to the angular vein which is placed below. The method of bleeding after finding the vein, it is hardly necessary to describe.

Philip de Castro, a Spanish Shepherd, has written a short treatise on the diseases of Sheep in Spain, and of their management there; and he recommends that bleeding should be performed in a vein in the forepart of the dug.—The essay of this Shepherd is believed to be worthy of some further notice.

He says the Merino Sheep of Spain are subject to the following diseases :

The Scab. Cured by juniper-oil when the weather is wet, or by a decoction of tobacco, in dry weather.

Basquilla; occasioned by too much blood.—Cured by bleeding in the dug, as before mentioned.

Moderez, (lethargy) occasioned by pustules formed on the brain. The Sheep keep turning, while feeding, to the side where the pustules are formed. Few recover, and the disease is infectious. Some get well in part, by pricking the part affected with an awl; but those attacked with this disorder should be killed off.

Small Pox; being blisters which first appear on the flanks, and spread over the body. It is produced by drinking stagnant waters. The

diseased Sheep are to be kept apart from the rest, as the disease is infectious, and when the blisters break, anoint them with sweet-oil.

Lastly, *Lameness*. He observes that the legs of Sheep are furnished with a duct which terminates in the fissure of the hoof; from which, when the animal is in health, there is secreted a white fluid; but when sickly these ducts are stopped by the hardnes of the fluid.

He adds, that he had in some instances found the sheep relieved by pressing out the hardened matter with the finger from the orifice of the duct in each foot. Perhaps it may in some cases be proper to place their feet in warm water, or to use a probe or hard brush, for cleansing this passage.

He concludes by observing, that probably the ill-health of Sheep, in wet or muddy pastures, may in some measure be ascribed to the necessity of keeping these ducts free and open.

The compilers of the "Complete Grazier," however, mention another kind of lameness in Sheep which is called the *Foot-halt*. It is caused by an insect resembling a worm, two or three inches long, which is found to have entered between the close of the claws of the sheep, and worked its passage upward between the external membranes and the bone. To extract the worm move the claws backwards and forwards in contrary directions, and it will

work its way out. In Great Britain this disorder is chiefly confined to wet pastures.

De Castro also mentions diseases to which the Merino Lambs are subject in Spain, when brought forth in wet weather; such as the *loh-annillo* (gangrene) which has no cure. The *amarilla* (jaundice) which is infectious; the flesh and bones of the Lamb turning of the color of yellow wax: For this a small quantity of the flax-leaved daphne guidium is good. The *Coviro*, a lameness of the feet, which appears to be the stoppage of the excretory duct, before mentioned. Generally, he says, the lambs are subject to the diseases of the ewes; and that the same remedies are requisite.

Sheep in Great Britain are subject to the rot but it is believed that this disease has never been known in this country. Another disease, however, which the British writers mention, our sheep are sometimes liable to; this is being *maggoty*, occasioned by being flyblown; and if not timely remedied the maggots will eat into the entrails in twenty-four hours. Cured by corrosive sublimate and turpentine rubbed into the sore.

Sheep in Great Britain are also subject to diseases called the *Red-water* and *White-water*, from the color of their urine. No cure known. Supposed to be occasioned by eating poisonous weeds.

In England it is a common practice, after shearing to smear the bodies of the sheep with a mixture of tar and fresh butter, which serves to cure the wounds in the skin and to fortify their bodies against the cold. This mixture may be improved by the addition of a small quantity of sulphur. The Sheep should again be anointed in the month of August, by introducing the ointment from head to tail, and also on the sides and back, by parting the wool for the purpose. This composition should, at all events, be applied to the wounds. It serves effectually to destroy all the ticks, which are very pernicious to Sheep.

After shearing the horned Sheep should be examined, to see that their horns do not press on the scull, or endanger the eyes; either of which may kill the animal. Where this is the case the horns are to be taken off; and for this purpose *Mr. Livingston* recommends sawing them off with a fine stiff-backed saw; then apply some tar to the stumps, and tie a double linen cloth over them to keep off the flies.

At this time also the lambs should be docked castrated and marked. *Mr Livingston* recommends the Spanish custom of docking the tail, as conducive to cleanliness. The castration is best performed by taking away the testicles at once. This operation may be performed on Lambs when not more than ten days old, and

the earlier this is done the finer will be their wool and flesh. If rain or cold weather succeed this operation before they are cured, they should be housed, otherwise they will be in danger of dying.

Another method of castration, which is probably best for grown Sheep, is to tie a cord tightly round the scrotum, and after five or six days, when the part below the cord is dead, cut it off just below the string, and tar the wound. This is, however, a dangerous operation when the weather is warm: Cool and dry weather should be chosen for it.

In Spain it is usual, instead of either of these operations, to twist the testicles within the scrotum, so as to knot the cord, in which case they decay gradually, without injuring the sheep.

Spaying Ewe-lambs increases their wool, makes them fatten better, and it is said improves the taste of their flesh. If this operation is to be performed, which perhaps will seldom be found advisable, it should not be attempted before the lambs are six weeks old.

Where ewes are to be turned off for fatting, the lambs must be weaned early; and then let the ewes have the ram again, which will make them fatten better. Lambs thus weaned should be put in a pasture of young tender grass, out of hearing of their dams, and an old wether or ewe should be put with them. Care must be

taken to milk the ewes every day or two, for the first week until their milk dries up.

In all other cases the weaning of lambs, before the time when they naturally wean themselves, is believed to be by no means advisable, as the lambs are injured by it at least as much as the ewes are benefitted. This may, however be found advisable where it is wished to have the ewes impregnated earlier than the usual time, for the purpose of raising very early Lambs.

To prevent Wolves from killing Sheep, says *Mr L'Hommedieu*, make an ointment composed of gunpowder and brimstone powdered fine and mixed with tar and Currier's oil, and with this anoint the throats of the Sheep. This must be renewed as often as the ointment loses its moisture, which will be four or five times in a season. Wolves have been seen to seize Sheep anointed in this manner and finding their throats thus fortified, have left them without doing them any injury.

Frequently changing flocks of Sheep from one farm to another, where the pastures are equally good is very beneficial to them. We know a flock which for several years past have been pastured on different farms, by being let out to different farmers on shares, which are much the finest looking sheep to be found any where in the neighborhood where they belong.

The Cattle Society of Pennsylvania recommend crossing the *Guinea breed* of Hogs with the best kinds of our common Swine, which, they say forms a breed the most profitable of any.

The *Chinese breed* are very good. The large long-bodied Hogs, with long ears leaning forward, are most profitable to fatten the second year.

Particular pains should be taken to select and improve the breed of Hogs, as some kinds are much more profitable for raising than others. After a proper improvement of the breed the next point is to select the finest for Breeding sows and for Boars.

The marks of a good Hog are, a moderate length, in proportion to the size of the body; the nose short, the cheek plump and full; neck thick and short; quarters full; carcass thick and full; hair fine and thin; with a symmetry adapted to the breed to which it belongs. Above all it is essential that it be of a kind disposition to fatten early. The long-nosed Hogs should be avoided.

The Sow will bring forth a stronger and better litter if kept from the Boar till she is a year old; and he should be kept till that age, before he is put to Sows. He should be kept

in good condition for the purpose; and as the compilers of the 'Complete Grazier' say, should not serve more than ten sows in a year. The Sows should also be kept in good condition, but not too fat; as in that case they will not produce an abundant litter of Pigs. As they will usually pig twice a year, they should be put to the Boar at such times as will bring one litter in *April*, and another early in *September*. To cause them to go to the Boar, if they miss the right season, give them some parched oats in their wash, or the small end of a runnet-bag. If well kept, however, they will seldom require any stimulus to coition at the proper times.

Those are reckoned the best breeders which have about ten or twelve paps. They should be kept clean and well littered; but should not have too much litter at the time of pigging, lest they overlay ther pigs in it. At the end of a week or ten days they should be let out of their sties into the yard, for three or four hours each day. Where several sows are farrowing about the same time, they must be kept in separate apartments in the sty, lest they devour the pigs of each other. Young Sows will sometimes eat their own offspring, which may be prevented by washing the backs of the pigs in an infusion of aloes; and for this purpose, the Sows must be watched when bringing forth. It is said that supplying them with plenty of water

at this time, will prevent any mischief taking place of the kind.

It has been uniformly remarked, that though these animals are naturally filthy, if left to themselves, yet the cleaner they are kept the better they will grow and fatten.

Boiled or steamed clover-hay will serve to keep Hogs during winter, but perhaps the addition of some potatoes or carrots boiled with the hay would be very proper. The clover should be cut a little sooner than usual, and should be well cured, and have about a peck of salt to each ton, when laid down in the mow.

Hogs for fattening should be in a healthy state, and to increase their appetite, let a dose or two of sulphur be given them in their food.—Change of food is also good to increase their appetite; but laxative food should be avoided, as they are seldom costive. When found so, a little rye will help them. Probably changes of boiled roots and of meal and water, at intervals, would be found best. Mr. Young says the best method of feeding all kinds of grain to Hogs is, to grind it to meal, and mix it with water in cisterns for the purpose, in the proportion of five bushels of meal to a hundred gallons of water, the mass to be well stirred several times each day, until it has fermented and become acid, when it will be ready for use. In this way two or three cisterns must

be kept for fermenting in succession; but he says the profits will amply pay the expense.

For the same reason the grains of distilleries and the refuse of starch-factories are excellent for fattening Swine. Pea-soup is also accounted good for fattening. Boiled Indian corn is also very good; or this grain may be soaked so as to answer well, though perhaps it is better ground into meal. Indian corn of a former year's growth is much the best.

In recommending peas, together with a mixture of barley-meal being used for fattening, the compilers of the "Complete Grazier" assert, that the pork fattened with this grain will rather swell in boiling and have an improved flavor; while that fattened with beans will shrink much in boiling, will lose much of its fat, and be of inferior taste. The cause of meat sometimes shrinking very much and losing much of its oil in cooking, seems not to be well understood; though the knowledge necessary for preventing it would be highly desirable. Generally speaking, it is believed, that the more fully any animal is fattened, the less its meat will shrink and part with its oil in cooking.

Mr Peters says that hogs while fattening should constantly have some dry rotten wood kept in the pen, which they will eat occasionally; and that he finds it very beneficial to them, for the purpose of keeping them in a proper condition

for fattening. He also says that food when soured by a proper degree of fermentation is much the best for fattening, and that one gallon of sour wash will go as far as two of the sweet, for this purpose. He disapproves of soiling Hogs, and says the clover pasture is the best for them.

Whatever method of fattening Swine may be adopted it is essential that they be kept *warm* and *clean*, by having plenty of litter, particularly when the weather becomes colder, and by having the sty frequently cleaned; and that they should have as much solid food and drink as they require. Their meals should also be regular, and as nearly equi-distant in point of time as possible.

Where a Hog has surfeited itself by eating too much, give it half an ounce of flour of sulphur in some wash once or twice a day, for two or three days, by which time its appetite will be restored. Mr Deane advises that posts be set up in the sty for them to rub against, as they are much inclined to rub themselves.

The business of fattening Hogs should be begun so early in the fall as to be completed before the cold weather sets in; as after this they will fatten very slowly. Let it be commenced by the middle of September, and then the killing may commence about the middle of November.

Swine are liable to some diseases which are here noticed, with the best remedies for them.

Measles. This disorder is mostly in the throat which is filled with small pustules, and sometimes these appear on the outside of the neck. The animal affected looks languid, with red eyes and loses flesh. Cure.—Give him small quantities of levigated crude antimony in his food.

The *Mange*, like the scab in Sheep, is a cutaneous irruption of the skin, occasioned by want of cleanliness in the hog-sty. It is known by the violent rubbing of the animal, till he tears the pustules, and thus produces scabs.—The cure as directed by Dr. Norford is, first to wash the animal with strong soap-suds, then anoint him with an ointment formed of an ounce of flour of sulphur, two drachms of fresh pulverized hillibore, three ounces of hogs lard and half an ounce of the water of kali. This is to be rubbed in at one time, and is sufficient for a Hog weighing an hundred. If properly applied, no repetition will be necessary, if the Hog be afterwards kept clean. Where he has a slight cough, he directs doses of antimony from half an ounce to an ounce and a half, according to the size of the animal, to be finely pulverized and mixed with his food, for ten days or a fortnight. But where from long neglect, the neck, ears and other parts become ulcerated, they should be anointed every third or fourth day with an ointment made of equal

parts of tar and mutton-suet, melted together, till the cure is completed.

Dry Cough, and wasting of the flesh, is best remedied by a dry warm sty, with a regular supply of food that is calculated to keep them cool, and to allay the irritation of the lungs.

Fever or rising of the Lights, seems to be caused by over-feeding; and may be removed by doses of sulphur and oil.

The Staggers. Swine afflicted with this disorder suddenly turn round rapidly, and if not assisted will die in half an hour. Remedy.—On opening the mouth, a bare knob in the roof of it will be discovered; cut this away and let the wound bleed; make a powder of loam and salt, and rub the wound with it, and then give the beast some urine, and he will presently recover.

This remedy Mr De Gruchy, a distiller who fattens many Hogs, says he found to be effectual if applied in time.





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